



ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
FOR THE
CITY OF CARDIFF,
FOR THE YEAR 1907.

EDWARD WALFORD, M.D. (Durh.), D.P.H. (Camb.),
MEDICAL OFFICER OF HEALTH,
CITY AND PORT SANITARY DISTRICT OF CARDIFF.

Printed by Order of the Sanitary Authority.

CARDIFF:
S. GLOSSOP & SONS,
NEW STREET WORKS.

1908.

CITY OF CARDIFF.

HEALTH AND PORT SANITARY COMMITTEE.

Lord Mayor :

ALDERMAN ILLTYD THOMAS, J.P.

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„ JABEZ A. JONES.

„ W. JENKINS.

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CITY OF CARDIFF.

Medical Officer of Health's Department.

Medical Officer of Health :

EDWARD WALFORD, M.D., D.P.H.

Chief Inspector of Nuisances :

T. W. WARREN.||*

District Inspectors :

S. EVANS.*

A. F. MALE.*

F. GLOVER.*

J. STRANGE.*

W. FISHER.*

S. JEFFERY.*

Infectious Disease Inspectors :

GEO. THOMAS.*

T. CHANT.*

Inspector of Lodging Houses :

J. W. HOLDEN *

Inspector under Shop Hours Acts, and Inspector of Workshops :

J. ASHMAN.*

*Inspector of Meat and other Foods and Inspector of
Cowsheds and Milkshops :*

G. M. MCGREGOR.*†

Women Inspectors :

MISS F. WADE.*

MRS. L. HUNTLEY.

Disinfectors at Disinfecting Station :

W. THOMAS.

W. WEBSTER.

Disinfectors :

F. DAVEY.

Clerks :

W. H. ALDERMAN.

F. HOWELL.

T. HILL.*

* Cert. Roy. San. Inst.

† Cert. Meat Insp.

|| R. P. C.

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CITY OF CARDIFF.

CITY HALL,
CARDIFF,
JULY, 1908.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH AND PORT SANITARY COMMITTEE.

GENTLEMEN,

I have the honour of submitting to you my Report for the year 1907, made in accordance with Article 18 (Section 14) of the Local Government Board's Order of March, 1891, which specifies the information to be contained in the Annual Report of the Medical Officer of Health, as follows :—

“ He shall make an annual report to the Sanitary Authority, up to the end of December in each year, comprising a summary of the action taken, or which he has advised the Sanitary Authority to take, during the year for preventing the spread of disease, and an account of the sanitary state of his district generally at the end of the year. The report shall also contain an account of the inquiries which he has made as to conditions injurious to health existing in the district, and of the proceedings in which he has taken part or advised under any Statute, so far as such proceedings relate to those conditions ; and also an account of the supervision exercised by him, or on his advice, for sanitary purposes over places and houses that the Sanitary Authority have power to regulate, with the nature and results of any proceedings which may have been so required and taken in respect of the same during the year. The report shall also record the action taken by him, or on his advice, during the year in regard to offensive trades, to dairies, cowsheds, and milkshops, and to factories and workshops.

“ The report shall also contain tabular statements (on forms to be supplied by us, or to the like effect) of the sickness and mortality within the district, classified according to diseases, ages, and localities.”

Under Section 132 of the Factory and Workshop Act, 1901, the Medical Officer of Health is also required to report annually on the administration of this Act in workshops and workplaces, and to send a copy of his annual report, or so much of it as deals with this subject, to the Secretary of State. The report should also include an account of the action with respect to factories, workshops, and workplaces, taken under the Public Health Acts, as well as under the Factory and Workshop Act, 1901, and should contain a record of any certificates of suitability which have been granted by the Sanitary Authority during the year with respect to underground bakchouses in use at the passing of this Act.

In the memorandum issued by Mr. W. H. Power, C.B., Medical Officer of the Local Government Board, dated December, 1907, it is pointed out that the annual reports of Medical Officers of Health should contain information as to the influences affecting, or threatening to affect, injuriously the public health in the district, and as to the action which has been taken, or which may still be needed, with a view to combat those influences. Further, that the report should record what action has been taken to remedy unhealthy conditions which have been reported upon in previous annual reports, or in special reports presented during the year under review, and that attention should be called afresh, year by year, to such as remain unremedied.

Attention is also directed to the recent memorandum on Medical Inspection of Children in Elementary Schools, issued by the Board of Education, dealing with the new duties thrown upon Local Education Authorities in this respect by Section 13 of the Education (Administrative Provisions) Act, 1907. It is pointed out that these duties are supplementary to existing Public Health Law, in that it requires supervision of the health of the individual child, and it is expected that in accordance with the advice of the Board of Education, the work will be carried out in conjunction with that of the Medical Officer of Health, or at least under his supervision, and that where the Medical Officer of Health is also School Medical Officer it may be convenient that the annual report which he is required to make in the latter capacity should be issued together with his annual report on the health of the district.

The subjects concerning which the Board desire to obtain information are enumerated as follows :—

Physical features and general character of the district.

The chief occupations of the inhabitants, and the influence of any particular occupation on public health.

House accommodation, especially for the working classes : its adequacy and fitness for habitation. Sufficiency of open space about houses, and cleanliness of surroundings. Supervision over erection of new houses. Action under the Housing of the Working Classes Act, taken or needed.

Sewerage and drainage : its sufficiency in all parts of the district. Condition of sewers and house drains. Method or methods of disposal of sewage. Localities where improvements are needed.

Pollution of rivers and streams in the district : the sources, and nature of such pollution, and any action taken to check it.

Excrement disposal : system in vogue ; defects, if any.

Removal and disposal of house refuse—whether by public scavenger or occupiers : frequency and method.

Water supply of the district or of its several parts : its source (from public service or otherwise), nature (river water, well water, upland water, etc.), sufficiency, wholesomeness, and freedom (by special treatment or otherwise) from risks of pollution.

Places over which the Council have supervision, *e.g.*, lodging houses, slaughterhouses, dairies, cowsheds, and milkshops, bakehouses, factories and workshops, and offensive trades.

Schools, especially public elementary schools ; sanitary condition of, including water supply ; action taken in relation to the health of the scholars and for preventing the spread of infectious disease.

Byelaws : steps taken for their enforcement ; any need of amendment or of further byelaws.

Nuisances : proceedings for their abatement—any remaining unabated.

Methods of dealing with infectious diseases : notification ; isolation hospital accommodation and its sufficiency ; disinfection.

PHYSICAL FEATURES OF DISTRICT.—An account of the geology of the district was inserted in the report for the year 1903, and it will therefore be unnecessary to repeat in detail the information upon this subject given therein.

The City of Cardiff comprises 6,373 acres of land and inland water, exclusive of foreshore and tidal water, and is situated upon impervious strata, consisting for the most part of new red marl; resting upon this formation are the more superficial deposits of river gravel, more or less saturated with water. A gradual rise in the gravel takes place towards the north, so as to attain a level of nearly 40 feet above Ordnance Datum in Queen Street and the Newport Road, and 50 feet at Cathays, where, resting on the red marl, it forms a deposit to a depth varying from 8 to 20 feet of good building land, upon which the greater part of the north-east side of the town is constructed. The part of the town situated on the west of the River Taff is, in the northern, or Canton district, on an alluvial deposit of clay, sand, and gravel; the southern, or Grangetown ward, being on the estuarine mud—a stiff blue clay of marine origin, which forms also the soil in the neighbourhood of the Docks and South Splott. This low-lying part of the town is now protected from the sea and tidal waters by banks, and has in many parts been raised by the deposit of made soil composed of ashes and house refuse collected by the public scavengers. The southern part of the town therefore consists of alluvial land at a very slight elevation above the ordinary sea level near the mouths of the Rivers Rhymney, Taff and Ely.

The Rhymney and Ely Rivers, at the points at which they enter the Bristol Channel, form respectively the eastern and western limits of the City; the Taff flowing in a southerly direction forms a natural division of the town into east and west, each having a separate drainage system.

The area of the City is distributed in Registration Sub-districts as follows:—East Cardiff, 481 acres, Central Cardiff, 3,832 acres, and West Cardiff, 2,060 acres; and into ten Municipal Wards, containing the civil parishes of Canton, Roath, St. John, and St. Mary.

Cardiff is well provided with parks and open spaces, forming admirable recreation grounds and breathing spaces for the inhabitants of the crowded parts of the town. Those places, which belong to the public and are under the control of the Cardiff Corporation, comprise a total area of over 300 acres, as follows:—

	Acreage, Exclusive of Roads.		
	Aces.	R.	P.
Roath Park (part of)	103	0	0
Victoria Park	19	2	36
Canton Park	6	1	36
Loudoun Square	1	1	37
Howard Gardens	1	0	36
Adamsdown Square	0	1	26
Plasturton Gardens	0	3	0
Despencer „	0	3	19
Clare „	0	0	39½
Moorland „	1	2	13
Grangetown „	3	0	14
Llanbleddian „	0	0	37
Ruthin „	0	0	27
Senghenydd „ (North)	0	1	6
„ „ (South)	0	0	12½
Windsor Esplanade Gardens	0	1	37
Roath Village Green	0	0	28
Roath Open Space	3	0	0
Splott Recreation Ground	18	0	0
Llandaff Fields	70	0	0
Cathays Park	60	0	0
Allen's Bank Crescent Open Space	0	1	16
Grangetown Recreation Ground	9	2	0
Total	301	0	20

In addition to the above-named open spaces the public has, through the generosity of the owners, free access to the following parks and fields :—

					A.	R.	P.
Sophia Gardens...	...	...	...	...	41	3	0
Sir David's Field	...	...	...	...	9	0	0
Cardiff Arms Park	...	...	...	...	21	2	0

HOUSE ACCOMMODATION.—The following Table gives the number of houses within each Municipal Ward in Cardiff, as shown by the enumeration made in June, 1907, by the Inspectors in the Department of the Medical Officer of Health.

TABLE I.

MUNICIPAL WARDS.	*Area in Acres.	Houses.					Population
		Inhabited	Uninhabited.		Building	Total.	
			In Occupation	Not in Occupation			
Central	473	1,934	264	109	3	2,310	11,217
South	519	1,787	50	53	—	1,890	10,365
Cathays	369	3,870	5	45	26	3,946	22,446
Adamsdown	1,570	2,008	29	66	—	2,103	11,646
Riverside	313	3,095	44	109	—	3,248	17,951
Canton	449	4,215	24	94	46	4,379	24,447
Grangetown	1,905	3,446	—	80	6	3,532	19,987
Roath	766	2,827	22	143	16	3,008	16,396
Park	533	4,553	35	66	45	4,699	26,407
Sploott	1,454	2,936	26	51	24	3,037	17,029
Totals	*8,351	30,671	499	816	166	32,152	177,891

* Including inland water and foreshore.

TABLE II.

The following Table, taken from the Census returns, shows the number of inhabited houses and population in Registration Sub-districts in 1891 and 1901 :—

Registration Sub-Districts.	Area in Statute Acres Land and Inland Water	Inhabited Houses.		Enumerated Population		Increase or Decrease of Population between 1891 and 1901.	
		1891.	1901.	1891.	1901.	Increase.	Decrease.
East Cardiff ...	481	5,838	9,297	35,294	52,585	17,291	—
Central Cardiff ...	3,832	8,102	8,835	53,824	54,316	492	—
West Cardiff ...	2,060	6,536	9,843	39,797	57,432	17,635	—

The following Table shows the density of the population or the average number of persons per acre of ground, within the City :—

TABLE III.

*DENSITY OF POPULATION DURING THE PAST TEN YEARS.

Year.					Persons per Acre.
1898	...	...	...	...	24.1
1899	...	...	...	...	24.7
1900	...	...	...	...	25.3
1901	...	...	...	...	25.9
1902	...	...	...	...	26.5
1903	...	...	...	...	27.0
1904	...	...	...	...	27.6
1905	...	...	...	...	28.1
1906	...	...	...	...	28.8
1907	...	...	...	...	29.4

* Calculated on the basis of the revised population, and on area of 6,373 acres.

From an inspection of the district made in June, 1907, it was found that there were 816 vacant houses, and that 166 were in the process of building. There is, therefore, at the present time no lack of house accommodation in the town. Large block tenemented artisans dwellings, so objectionable on account of the overcrowding on a limited area, do not exist in Cardiff. Most of the working class families occupy separate dwellings, with an open space in the back and front, and sub-let one or two rooms to lodgers or other small families. Private building companies have, in some quarters of the town, i.e., Grangetown and Adamsdown, provided single tenement cottages, in which no lodgers are taken, at a rental of about 5/- per week. These houses provide excellent accommodation, containing usually four rooms in each house, and are seldom unoccupied for any length of time. The number of houses and shops in the City, for which plans have been passed in each year since 1894 is shown in the following table :—

TABLE IV.

From August, 1894 to August, 1895	...	1,507
" " 1895 " " 1896	...	1,196
" " 1896 " " 1897	...	1,247
" " 1897 " " 1898	...	1,258
" " 1898 " " 1899	...	624
" " 1899 " " 1900	...	267
" " 1900 " " 1901	...	230
" " 1901 " " 1902	...	185
" " 1902 " " 1903	...	398
" " 1903 " " 1904	...	225
" " 1904 " " 1905	...	389
" " 1905 " " 1906	...	291
" " 1906 " " 1907	...	219

The following Table shows the action taken under Part II. of the Housing of the Working Classes Act, 1890, relating to houses unfit for human habitation since the Act came into force :—

TABLE V.

STREET.	Number of Houses.	Representations by Medical Officer of Health	Closing Orders Obtained.	Houses Demolished.	Houses Repaired.
Bryant's Court	2	2	2	—	—
Castle Court	5	5	5	5	—
Evans' Court	2	2	2	—	—
Gulliver's Court	2	2	2	—	—
Harris Court	6	6	—	—	6
Hodge's Row... ..	12	12	12	—	—
Jenkins' Court	5	5	5	—	—
Jonathan's Court	2	2	2	2	—
Love Lane Court	5	5	1	—	4
Mason's Arms Court	8	8	8	—	—
Matthews' Court	6	6	6	—	—
Moulders' Arms Court... ..	2	2	2	2	—
North Road	1	1	1	—	—
Picton Cottages	3	3	3	—	—
Spring Gardens Court	5	5	5	—	—
Stacey Court	4	4	4	4	—
Williams' Court	2	2	2	—	—
Totals	72	72	62	13	10

Courts, &c., in occupation :—

Carpenters' Arms Court	Old Sea Lock Court
Crown Court	Roberts' Court
Davies' Court	Rowlands' Buildings
Green Garden Court	Trice's Court
Mack's Court	Womanby Street Cottages

Courts, &c., demolished without representations :—

Dews' Court	Kingston Court
Giles' Court	Stagg Terrace

There are no large insanitary areas in the City which could be conveniently dealt with for the purposes of an improvement scheme under Part I. of the Housing of the Working Classes Act, 1890, but a considerable number of houses have been closed as unfit for human habitation, under the provisions of Part II. of the Act. Amongst the dwellings which have been permanently closed (since 1890) either by a closing order, as provided by Sec. 32 of the Act, or by the voluntary action of the owner, after initial proceedings by the Sanitary Authority, may be mentioned :—Mill Lane Court, 34 houses in Stanley Street, 12 houses in Leckwith Road, Kettle Court, Evans' Court, Union Buildings, Sandon Court, Dalton Court, Rising Sun Court, Jones' Court (Womanby Street), The Tunnel (Queen Street), Temperance Terrace (Working Street), Queen's Place, Masons' Arms Court, Love Lane Court, Castle Court, Moulders' Arms Court, Bryant's Court, Matthews' Court, Stacey Court, Picton Cottages, Stagg Terrace, Jenkins' Court, Gullivers' Court, Evans' Court, Jonathan's Court, Spring Garden Court, and Hodges' Row.

From the Table of House Inspection contained in this report, it will be seen that a large number of sanitary defects have been discovered by the Inspectors during the year. These were remedied for the most part either at the written request of the Inspector of Nuisances, or upon the service of a preliminary notice. In some few cases it was necessary to proceed for the abatement of the nuisance in accordance with the provisions of the Public Health Act.

The erection of new houses, together with the construction of their drainage, is under the control of the City Engineer and Surveyor. All such dwellings are constructed subject to the new Building Bye-laws, which came into force on the 21st March, 1900.

WATER SUPPLY.—Cardiff is provided with an abundant and pure supply of soft water, obtained from the Taff Fawr Watershed of the Brecon Beacons. To Mr. C. H. Priestley, M.I.C.E., Waterworks Engineer, I am indebted for the following information. The gathering ground is situated to the north of the South Wales Coalfield, on the old red sandstone formation, about 35 miles from Cardiff. The watershed consists of 10,400 acres of mountain pastureland, and the water is conveyed by gravitation from the storage reservoirs down the Taff Valley to the reservoirs at Lisvane and Llanishen; balancing reservoirs being placed at suitable situations along the line of the main conduit, with filter beds of sand, etc., at Rhubina and the Heath. At the latter place one battery of 4 Candy's Polarite Filters has been fixed in addition to the existing filter beds.

The capacity of the storage reservoirs is as follows:—

Beacons Storage Reservoir	...	...	345,000,000	gallons.
Cantrefff	..	..	323,000,000	..
Llanishen	..	..	317,000,000	..
Lisvane	..	..	80,000,000	..

Besides the storage reservoirs, the works comprise several smaller service reservoirs and filter beds. The average annual rainfall at the Beacons Reservoir for the 23 years, 1885-1907 was 76.06 inches. The average consumption of water per head per day within the limits of the area of supply during the year 1907, was 27.34 gallons.

The water undergoes sand filtration at Rhubina, at which place the works comprise 5 filter beds, with a capacity of about one million gallons per day; two pure water service reservoirs, with a capacity of 660,000 gallons, and one open and one covered storage reservoir, with a total capacity of 2,200,000 gallons. This high level service becoming inadequate for the supply of the rapidly increasing population, further storage became necessary, and a service reservoir with a water tower both supplied by gravitation from Rhubina, were constructed at Penylan in 1898. With the combined storage at Rhubina and Penylan there is available for high level districts about six million gallons, sufficient at present for about twelve days' consumption. In addition to the sand filters, a battery of mechanical filters (Candy's) has been erected, capable of filtering one million gallons per day.

Penarth is supplied from reservoirs at Llandough and at Leckwith, the top level of the latter reservoir being 300 feet above ordnance datum. To this reservoir the water is pumped from the Cogan Pumping Station.

The compulsory area of supply in addition to the City includes Penarth, Llandaff, Whitchurch, Llanishen, Lisvane, St. Fagans, Llanedarne, Leckwith, Llandough, Cogan, and some parts of Michaelstone-le-pit, and St. Andrews. Further agreements have been entered into with the District Councils of Barry, Llandaff and Dinas Powis, and St. Mellons, for the supply of some parts of their districts.

The total population at present supplied by the City of Cardiff Corporation Waterworks is estimated at 222,000 persons.

In previous reports attention has been called to the possibility of the pollution of some streams feeding the Taff Fawr reservoirs, from the drainage of certain premises, the Storey Arms Inn, which are in close proximity to the Beacons Reservoir. The results of the bacteriological and chemical examinations of the water of this reservoir indicated at times some pollution from this source, although after filtration the water was of sufficient purity. In times of wet weather also an undesirable amount of road drainage entered the Cantref Reservoir. Since these reports were presented efforts have been made by the Authority to obtain possession of the Storey Arms Inn, and at the present time the purchase is, I understand, about to be completed. When this has been effected, and when these premises have been removed from their present situation, as previously advised, all possibility of danger from this source will be removed.

The following Tables give the most recent results of the Examination of the Cardiff Water :—

TABLE VI.
BACTERIOLOGICAL EXAMINATION OF SAMPLES OF CARDIFF WATER.

Date Collected.	Description of Sample.	Number of Organisms per c.c.		REMARKS.
		At 37°C	At 20°C.	
1907				
October 22	Beacons Reservoir ...	76	liquefied	B. Coli present in 0.1 c.c.
" 22	Cantref Reservoir ...	112	liquefied	B. Coli present in 0.5 c.c.; not in 0.1 c.c.
" 22	Heath Filters ...	8	38	B. Coli absent from 40 c.c.
" 22	Lisvane Reservoir ...	30	154	B. Coli absent from 40 c.c.
" 22	Llanishen Reservoir ...	74	256	B. Coli present in 10 c.c.; absent from 2 c.c.
" 22	Rhubina Filters ...	8	64	B. Coli absent from 40 c.c.

TABLE VII.
CHEMICAL ANALYSIS OF SAMPLES OF CARDIFF WATER.

All results are stated in parts per 100,000.

Date Collected.	Description of Sample.	Reaction	Total Hardness	Chlorine	Ammonia.		Nitrogen as Nitrates.	Oxygen absorbed 4 hours 80°F.
					Free.	Albuminoid.		
1907								
October 22	Beacons Reservoir ...	Very Faintly Alkaline	2.3°	.7	.0015	.0054	Less than .01	.189
October 22	Cantref Reservoir ...	Very Faintly Alkaline	2.2°	.7	.0012	.0062	Less than .01	.217
October 22	Heath Filters ...	Faintly Alkaline	3.1°	.7	.0010	.0038	Practically Nil	.115
October 22	Lisvane Reservoir ...	Faintly Alkaline	2.9°	.7	.0010	.0052	Practically Nil	.081
October 22	Llanishen Reservoir .	Very Faintly Alkaline	2.5°	.7	.0010	.0060	Practically Nil	.156
October 22	Rhubina Filters ...	Faintly Alkaline	3.1°	.7	.0012	.0040	Practically Nil	.152

MEAT INSPECTION.—The inspection of meat and other foods has been systematically carried out during the year. As all the slaughtering within the limits of the City is done in the two Public Abattoirs belonging to the Corporation, it is comparatively easy to exercise an efficient supervision over the carcasses of animals slaughtered upon these premises, as well as over the meat exposed for sale in the markets adjoining the slaughter houses. Under these circumstances, when unsound meat is discovered, and is voluntarily surrendered by the owner, no proceedings are taken under Sections 116 and 117 of the Public Health Act, 1875. No order for destruction is in such cases made by the magistrates, and the meat is destroyed under the supervision of an Inspector of the Sanitary Authority.

The Staff of Inspectors of meat and foods comprises the following:—Mr. P. J. Mullane, M.R.C.V.S., Veterinary Surgeon to the Corporation, acts as Chief Inspector of Meat. By arrangement between the Health Committee and the Property and Markets Committee, Mr. N. Rees, the Superintendent of the Roath Abattoir, and four of his assistants are appointed to assist in the inspection of meat in the Public Slaughter Houses. Mr. G. M. McGregor, who holds the Certificate of the Royal Sanitary Institute for Meat Inspectors, and who was formerly a butcher, acts as Meat and Food Inspector in Shops and Markets within the City. In connection with the meat inspection, full use is made of the Public Health Laboratory for purposes of diagnosis.

The following Table shows the amount of meat found by the Medical Officer of Health to be unfit for food, and destroyed, either with the consent of the owner, or by an order of a magistrate, in each year during the period 1896—1907.

TABLE VIII.

Year.							Meat.
1896	...	...	...	...	...	...	3,896 lbs.
1897	...	...	...	...	...	...	10,824 „
1898	...	...	...	...	...	...	9,929 „
1899	...	...	...	...	...	...	14,205 „
1900	...	...	...	...	...	...	21,217 „
1901	...	...	...	...	...	...	33,696 „
1902	...	...	...	...	...	...	43,675 „
1903	...	...	...	...	...	...	41,710 „
1904	...	...	...	...	...	...	41,606 „
1905	...	...	...	...	...	...	41,212 „
1906	...	...	...	...	...	...	48,909 „
1907	...	...	...	...	...	...	54,180 „

During the year 1907 the number of animals slaughtered in the Public Slaughter Houses in the City was as follows:—

						Roath Abattoir.	Canton Abattoir.
Beasts	...	...	...	...	...	6,812	993
Sheep	...	...	...	...	...	36,350	5,533
Calves	...	...	...	...	...	4,827	261
Pigs	...	...	...	...	...	20,856	4,101
Totals	...	...	...	...	...	68,845	10,888

TABLE IX.

UNSOOUND MEAT SEIZED OR SURRENDERED.

Place of Seizure.				Number of Carcases	Number Condemned by Magistrates	Number Destroyed by arrangement with Owner	Total Weight in lbs. of whole and part Carcases
Roath Slaughter House	...	...	...	81	—	81	28,516
Canton	„	„	...	9	—	9	2,586
Totals	...	...	...	90	—	90	31,102

The cause of seizure in each case was as follows :—

Bruised	...	1 sheep.	Injuries	...	4 sheep.
Congestion	...	1 pig	Peritonitis	...	2 sheep.
Decomposition	...	1 sheep.	Pneumonia	...	1 sheep
Distomatosis	...	1 sheep	Prematurity	...	2 calves.
Dropsy	...	2 pigs.	Pyæmia	...	1 pig.
Found dead	...	6 sheep.	Septicæmia	...	1 pig.
„ „	...	4 pigs.	Tuberculosis	...	32 beasts.
Inflammation	...	2 beasts.	„	...	2 calves.
„	...	1 sheep.	„	...	25 pigs.
			„	...	1 sheep.

TABLE X.

MEAT INSPECTION IN THE PUBLIC SLAUGHTERHOUSES AT ROATH AND CANTON :—

	Year	Number of Animals Slaughtered	Number of Animals Condemned	Percentage Condemned
Roath	1897	73,897	35	0-04
Canton	"	11,671		
Total		85,568		
Roath	1898	64,131	24	0-03
Canton	"	10,610		
Total		74,741		
Roath	1899	75,684	31	0-04
Canton	"	9,694		
Total		85,378		
Roath	1900	83,880	30	0-03
Canton	"	10,783	1	
Total		94,663	31	
Roath	1901	69,385	61	0-08
Canton	"	10,578	5	
Total		79,963	66	
Roath	1902	73,528	66	0-09
Canton	"	11,518	9	
Total		85,046	75	
Roath	1903	69,146	72	0-09
Canton	"	12,112	5	
Total		81,258	77	
Roath	1904	74,550	80	0-10
Canton	"	11,154	8	
Total		85,704	88	
Roath	1905	70,076	74	0-10
Canton	"	10,482	10	
Total		80,558	84	
Roath	1906	67,155	94	0-14
Canton	"	10,428	14	
Total		77,583	108	
Roath	1907	68,845	81	0-11
Canton	"	10,888	9	
Total		79,733	90	

TABLE XI.
OTHER ARTICLES OF FOOD SEIZED OR SURRENDERED.

Place of Seizure.	Description of Articles Seized.	Condemned by Magistrate.	Destroyed by arrangement with Owner.	Total weight in lbs.
Central Market ...	2 carcasses of mutton	—	1	115
	1 box of fish	—	1	112
	Quantity of meat	—	1	30
	1 piece of mutton	—	1	10
Fish Market ...	1 box of giblets	—	1	70
	Quantity of fish	—	1	919
	1 box of cods' roe	—	1	110
	30 boxes of fish	—	1	3,074
	Quantity of prunes and 18 crates of cherries	—	1	308
	28 mackerel and 80 bream	1	—	60
	103 flatfish and 3 haddock	1	—	50
	14 boxes of pears	—	1	168
	5 baskets of strawberries	—	1	40
	25 baskets of greengages	—	1	600
Great Western Rail- way Station ...	9 boxes of cucumbers	—	1	140
	4 haddock	—	1	8
	1 box of fish	—	1	100
	5 pieces of beef	—	1	200
	1 bag of cockles	—	1	112
	16 boxes of bloaters	—	1	112
	2 rabbits and quantity of tripe	—	1	184
	Box of pigs kidneys	—	1	28
	Fore quarter of mutton (frozen)	—	1	60
	5 pieces of corned beef	—	1	51
Shops ...	Quantity of beef	—	1	868
	Quantity of mutton	—	1	31
	Barrel of chestnuts	—	1	70
	4 rabbits (frozen)	—	1	8
	4 fore quarters of veal	—	1	8
	Shoulder of bacon and 1 rabbit	—	1	10
	1 bullock's head and 2 livers	—	1	56
	Quantity of beef	1	—	28
	Quantity of fish	—	1	14
	Jar of pickles	—	1	13
	Fruit	—	1	981
	4 breasts of mutton	—	1	14
	Tomatoes	—	1	500
	Bloaters and kippers	—	1	40
	Quantity of tripe	—	1	30
	2 pigs' plucks	—	1	20
	9 rabbits and salt beef	—	1	40
	Quantity of lamb	—	1	34
	7 bags of walnuts	—	1	228
	6 lbs. of sausages and 1 tongue	—	1	14
Stores ...	7 pieces of beef and 3 pieces of mutton	1	—	50
	16 pieces of bacon	—	1	61
	2 boxes of geese and ducks	—	1	224
	Box of sheep's hearts and barrel of tripe	—	1	42
	41 rabbits	—	1	90
	Quantity of fish	—	1	5,577
	Fruit	—	1	1,642
	20 bags of pickling cabbage and 2 barrels of onions	—	1	2,540
	145 boxes of tomatoes	—	1	2,040
	7 barrels of tripe	—	1	180
	12 tins of prawns	—	1	151
	Quantity of beef	—	1	531
	Carcass of mutton	—	1	130
	1 box of cods' roe	—	1	112
	2 kegs of pigs' kidneys	—	1	40
	Totals	4	55	23,078

SALE OF FOOD AND DRUGS ACTS.—The following Table shows the number of samples of food and drugs submitted during the year 1907, to the public Analyst, Mr. Thomas Hughes, F.I.C., F.C.S.

TABLE XII.

Samples obtained.	Number of Samples.	Number of Genuine Samples.	Number of Samples Adulterated	Fines.
Milk	445	407	38	£50 and £10 costs; £5 and costs; £5 and costs; £5 and costs; £5 and costs; £3 and costs; £2 and costs; £2 and costs; £2 and costs; £2 and costs; £2 and costs; £2 and costs; 10s. and costs; 10s. and costs; 1s. and costs; 6 cases fined costs; 7 cases dismissed; 2 cases withdrawn; no action taken in 7 cases.
Milk (skimmed)	5	5	—	No action taken.
Butter	27	26	1	
Bread	7	7	—	£5 and costs.
Flour	7	7	—	
Cornflour	9	9	—	£5 and costs.
Coffee	12	11	1	
Pepper	10	10	—	£5 and costs.
Vinegar	3	3	—	
Beer... ..	6	6	—	£5 and costs.
Margarine	15	15	—	
Oatmeal	7	7	—	£5 and costs.
Arrowroot	4	4	—	
Lard	6	6	—	£5 and costs.
Tea	5	5	—	
Rice	3	3	—	£5 and costs.
Demerara Sugar	5	5	—	
Gin	3	3	—	£5 and costs.
Baking Powder	9	9	—	
Brandy	1	1	—	£5 and costs.
Rum	2	2	—	
Cream	3	3	—	£5 and costs.
Cheese	3	3	—	
Ginger	3	3	—	£5 and costs.
Totals	600	560	40	

TABLE XIII.

Table showing number of samples of milk analysed, and proportion adulterated, during the year 1907:—

	Total Number of Samples Analysed.	ADULTERATED.							
		Number	Percentage	Added Water	Deficient Fat	Preservatives	Added Water and Preservatives	Added Water and Deficient Fat	Deficient Fat and Preservatives
WHOLESALE— Taken at Railway Station, etc.	38	38	8.5	—	2	—	—	1	—
RETAIL— Taken in Shops, Carts, etc.	407			2	24	4	1	3	1

TABLE XIV.

Unofficial samples of milk analysed at Cardiff and County Public Health Laboratory during the year 1907:—

	Total Number of Samples Analysed.	ADULTERATED.			
		Number.	Percentage	Deficient Fat.	Added Water and Deficient Fat.
WHOLESALE— Taken at Railway Station, etc.	13	11	31.4	2	—
RETAIL— Taken in Shops, Carts, etc....	22			8	1

Towards the end of the year 1906 certain alterations took place in the local administration of the Sale of Food and Drugs Acts. Owing to the resignation of the Inspector in charge of this work, the Health Committee considered that it was desirable to distribute the duty of collecting samples amongst the several Inspectors acting under the direction of the Medical Officer of Health. Eleven of these Inspectors were therefore specially appointed to carry out these duties. This method considerably reduces the possibility of the sampler being recognized as an official of the Corporation.

It will be noticed that the practice of taking unofficial samples for analysis has been continued. In this way a certain number of samples were submitted for analysis in which the exact methods laid down in the Act have not been complied with, and the dealer, therefore, did not know that the samples were taken for the purpose of analysis. Out of 35 samples of milk taken unofficially, 11, or 31.4 per cent. were adulterated, as compared with 8.5 per cent. of the samples taken officially. It will be seen from the Tables that 7.8 per cent. of the samples taken officially from the Railway Stations were adulterated, and 8.5 per cent. of those taken from shops.

Amongst the 38 samples of milk found to be adulterated six were found to contain preservatives, two containing formaldehyde to the extent of 0.0015 and 0.00076 per cent. respectively. Those containing boric acid held 0.036, 0.015, 0.011, and 0.009 per cent. respectively.

INSPECTION OF FACTORIES AND WORKSHOPS.—The Factory and Workshop Act of 1901 makes considerable alterations in and additions to the duties hitherto falling upon Medical Officers of Health. Under Section 132, the Medical Officer of Health is required in his Annual Report to deal specifically with the administration of the Act (so far as the matters under the charge of the Sanitary Authority are concerned), and to send a copy of this report to the Secretary of State.

Section 101 of the Act imposes important duties on Sanitary Authorities in regard to underground bakehouses. The Section provides that no underground bakehouse shall be used as such unless it was so used at the time of the passing of the Act, *i.e.*, August 17th, 1901, and further, that after the 1st of January, 1904, no underground bakehouse (whenever established) may be used unless the Sanitary Authority is satisfied that it is suitable for the purpose in regard to construction, light, ventilation, and in all other respects, and have given it a certificate of suitability. A definition of the term "underground bakehouse" is given for the first time in this Act:—"A bakehouse is to be deemed an underground bakehouse if any room used for baking or for any process incidental thereto is so situate that the surface of the floor is more than three feet below the surface of the footway of the adjoining street or of the ground adjoining or nearest to the room."

The question of the conditions under which these certificates should be granted is one of some difficulty, as no detailed instructions are given in the Act. The matter is left entirely to the discretion of the Sanitary Authority, subject to the general principle that all underground bakehouses must be suitable as regards construction, ventilation, light, and in all other respects.

This Section of the Act was apparently framed with the intention of encouraging the total abolition of underground bakehouses, and there can be no doubt that it would have this effect if Sanitary Authorities throughout the country were to adopt a high standard of suitability. On the other hand, as these certificates are not subject to periodical renewals, the practical working of this part of the Act may, unless extreme care is taken, result in the prolonged use of unsuitable premises.

Three certificates have been granted to the occupiers of underground premises after the completion of extensive structural alterations as required by the Sanitary Authority.

The following information is set forth on the form supplied by the Secretary of State, a copy of which was forwarded to the Home Office in January of the present year.

and LAURENCE

1.—INSPECTION.

PARTICULARS.		NUMBER OF	
		Found.	Remedied.
Nuisances under the Public Health Acts :—			
Want of cleanliness	...	115	115
Want of ventilation	...	17	17
Overcrowding	...	5	5
Want of drainage of floors	...	1	1
Other nuisances	...	85	85
*Sanitary accommodation	... {insufficient	14	14
	... {unsuitable or defective	118	118
	... {not separate for sexes	6	6
Total	...	361	361

3.—HOME WORK.

Nature of Work.	Outworkers' Lists, Section 107.						Number of Inspections of Out-workers' Premises.	Outwork in Infected Premises—Sections 109, 110.	
	Lists received from Employers.				Number of Addresses of Out-workers received from other Councils.	Number of Addresses of Out-workers forwarded to other Councils.			
	Twice in the Year.		Once in the Year.						
	Lists.	Out-workers.	Lists.	Out-workers.					
Wearing Apparel :— (1) Making, &c. ... (2) Cleaning and Washing	84 ...	180 ...	7 ...	16 ...	1 ...	1 ...	196 ...	30 ...	30 ...

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131), at the end of the Year.	Number.
Bakers... ..	185
Tailors... ..	169
Dressmakers... ..	147
Other	437
Total number of Workshops on Register	938

5.—OTHER MATTERS.

CLASS.	NUMBER.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (Sec. 133)	54
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act :—	
Notified by H.M. Inspector	43
Reports (of action taken) sent to H.M. Inspector	43
Other (Sec. 127, Sub. Sec. 3)	126
Underground Bakehouses in use at the end of the year	3

INSPECTION OF FACTORIES AND WORKSHOPS.

FACTORY AND WORKSHOP ACT, 1901, SHOP HOURS ACTS, 1892-95-1904, AND THE SEATS FOR SHOP ASSISTANTS ACT, 1899.

During the year 1907, a large number of factories and workshops were inspected. The results of these inspections are given in the following Tables :—

TABLE XVI.

Nature of Factories and Workshops Inspected.	Number on Register.			Total.	Number of Inspections.
	Workshops.	Factories.	Domestic Workshops.		
Bakers	185	17	—	202	664
Sugar Boilers	8	1	—	9	21
Tailors	169	—	151	320	633
Dressmakers	147	—	59	206	494
Milliners	52	—	1	53	114
Corset Makers	1	—	2	3	2
Shirt and Hose Manufacturers... ..	4	—	—	4	5
Bootmakers	87	2	—	89	140
Saddlers	7	—	—	7	19
Oilskin Manufacturers	4	—	—	4	27
Umbrella Makers	2	—	1	3	11
Laundries	17	11	5	33	79
Carpenters	23	12	—	35	101
Cabinet Makers	15	2	—	17	31
Upholsterers	8	—	—	8	9
Picture Frame Makers	11	2	—	13	22
Coopers	3	1	—	4	3
Pattern Makers	2	—	—	2	—
Bottlers	5	8	—	13	35
Packers	19	—	—	19	44
Tinsmiths	6	—	—	6	11
Blacksmiths	24	2	—	26	32
Paper Bag Makers	4	1	—	5	19
Box Makers	—	3	—	3	5
Watch Makers	8	—	—	8	8
Dentists	1	—	—	1	1
Blue Factory	—	1	—	1	—
Tent and Sail Maker	6	—	—	6	—
Basket Makers	2	—	—	2	9
Blind Makers	6	—	—	6	10

Nature of Factories and Workshops Inspected.	Number on Register.			Total.	Number of Inspections.
	Workshops.	Factories.	Domestic Workshops.		
Mat Makers	—	1	—	1	—
Truss Makers	1	—	—	1	2
Bed Makers	2	1	—	3	11
Mattress Makers	—	1	—	1	3
Tobacco Pipe Makers	—	1	—	1	—
Musical Instrument Makers	5	—	—	5	11
Sewing Machine and Perambulator Makers	3	—	—	3	3
Cycle Makers	14	4	—	18	27
Electro Platers	—	2	—	2	—
Electricians	3	—	—	3	22
Cigar Manufacturers	—	1	—	1	2
Cigarette Manufacturers	1	1	—	2	1
Firewood Cutters	—	3	—	3	1
Stable Yards	—	—	—	—	26
Coach Builders	6	4	—	10	24
Engineers	—	24	—	24	12
Wire Workers	1	—	—	1	1
File Works	—	1	—	1	—
Scale Makers	2	—	—	2	6
Oil and Colour Works	—	5	—	5	15
Rope Works	—	2	—	2	1
Hairdressers	1	—	—	1	3
Photographers	7	—	—	7	9
India Rubber Works	1	2	—	3	5
Aerated Water Manufacturers	—	2	—	2	10
Stone Masons	1	—	—	1	1
Cement Works	—	2	—	2	5
Asphalte Works	—	1	—	1	—
Rag Sorters	6	—	—	6	51
Plaster Moulder	2	—	—	2	9
Biscuit Works	—	2	—	2	—
Flour Mills	—	4	—	4	2
Furrier	1	—	—	1	—
Tanner	—	1	—	1	1
Jam Factory	—	1	—	1	—
Boat Builders	4	2	—	6	11
Saw Mills	—	5	—	5	—
Brick and Tile Works	—	1	—	1	—
Patent Fuel Works	—	1	—	1	—
Plumbers	9	—	—	9	7
Engravers	2	—	—	2	2
Printers	—	26	—	26	9
Bookbinders	—	1	—	1	—
Chemical and Pickle Works	1	1	—	2	1
Copper Works	—	1	—	1	—
Milk Sterilizer	—	1	—	1	—
Opticians	1	1	—	2	1
Heating Apparatus Fitter	1	—	—	1	1
Bottle Sorter	1	—	—	1	15
Sack Repairers	4	—	—	4	13
Decorators	3	—	—	3	2
Monumental Masons	5	—	—	5	5
Wheelwrights	14	—	—	14	22
Black and White Artist	1	—	—	1	1
Tallow Melter	1	—	—	1	1
Chaff Cutter	—	1	—	1	3
Motor Manufacturers	1	3	—	4	11
Brass Founders	—	6	—	6	2
Iron Founders	—	4	—	4	12
Carpet Beater	1	—	—	1	1
Brattice Cloth Manufacturers	—	2	—	2	1
Lath Renders	2	—	—	2	1
Warehouses	4	—	—	4	4
Cake Factory	—	1	—	1	—
Totals	938	186	219	1,343	2,940

SHOP HOURS ACT, 1904.—This Act, which came into operation during the year 1904, enables Local Authorities to make Closing Orders fixing the hours of closing on the several days of the week, either in the entire area of the district of the Local Authority or in any specified part thereof. The Closing Order may apply to all shops, or to shops of any specified class.

The Act requires that the occupiers of shops desirous of promoting early closing should apply to the Local Authority, who may then take further steps in accordance with the provisions of the Act.

Number of shops and persons affected by Closing Orders made under the Shop Hours Act, 1904 :—

No. of Order.	Trade.	Number of shops.	Approximate number of persons.
1 ...	Barbers	181	400
2 ...	Bootmakers	38	64
3 ...	Bootsellers	42	118
4 ...	"	107	182
5 ...	"	48	90
Totals		416	854

SHOP HOURS ACT, 1904.

PROSECUTIONS.

Shops kept open during prohibited hours	...	...	...	4
Not exhibiting notices	...	...	...	7
Total				11

RESULTS.

Fined 10s. and 5s. 6d. costs	...	...	...	1
" 5s. 6d. costs each	...	...	...	2
Cautioned	...	...	...	6
Dismissed	...	...	...	2
				11

SHOP HOURS ACT, 1892.

PROSECUTION.

Employing a young person for more than 74 hours in one week	...	1
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RESULT.

Fined costs, 10s. 6d.	1
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TABLE XVIII.

Nature of Shops Inspected.	Number of Inspections.	Employing Young Persons.	Employing Females.	Seats Provided.
Drapers	93	73	92	92
Grocers	54	45	3	3
Butchers	47	35	—	—
Hairdressers and Tobacconists	1,510	98	130	130
Newsagents and Stationers	67	37	54	54
Bootdealers	2,058	97	123	123
Confectioners	22	6	19	19
Public Houses	5	—	5	5
Fancy Dealers	38	19	38	38
Fruiters	17	11	10	10
Chemists	2	1	—	—
Corn Merchants	1	—	—	—
Ironmongers	1	—	—	—
Totals	3,915	422	474	474

MIDWIVES ACT, 1902.—The following Tables give an account of the work done by Miss A. Hoyle, the Inspector of Midwives, during the year 1907.

Number of Midwives on Register	110
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CERTIFIED MIDWIVES WITH THEIR QUALIFICATIONS :—

<i>Bona fide</i>	83
Obstetrical Society of London	10
Rotunda Hospital	...	...	...	...	...	2
Examination of Central Midwives Board	...	...	...	...	...	15
Total	...	...	...	...	...	110

RECORDS OF SENDING FOR MEDICAL HELP :—

In case of the Mother	...	...	...	...	...	156
In case of the Child	...	...	...	...	...	28
Total	...	...	...	...	...	184

NUMBER OF BIRTHS NOTIFIED TO THE MEDICAL OFFICER OF HEALTH DURING THE YEAR 1907.

First Quarter	...	...	...	...	...	500
Second Quarter	...	...	...	...	...	732
Third Quarter	...	...	...	...	...	780
Fourth Quarter	...	...	...	...	...	880
Total	...	...	...	...	...	2,892

NUMBER OF VISITS PAID TO THE ABOVE CASES :—

First Quarter	...	...	...	...	...	464
Second Quarter	...	...	...	...	...	346
Third Quarter	...	...	...	...	...	585
Fourth Quarter	...	...	...	...	...	745
Total	...	...	...	...	...	2,140

SEAMEN'S LODGING HOUSES.

Total number on register	...	...	...	...	...	133
Registered rooms	...	...	...	...	...	400
Number of persons certified to accommodate	...	...	...	...	...	1,522

INSPECTION OF SEAMEN'S LODGING HOUSES DURING 1907.

Day inspections	...	...	...	...	...	2,589
Night inspections	...	...	...	...	...	153

NATURE OF SANITARY DEFECTS FOUND, AND OF IMPROVEMENTS EFFECTED :

W.C's. supplied with water	...	...	...	...	...	24
Defective water closets and drains	...	...	...	...	...	71
Defective paving in yards	...	...	...	...	...	64
Defective bedroom ventilation	...	...	...	...	...	60
Houses with walls and roofs out of repair	...	...	...	...	...	65
Houses limewashed	...	...	...	...	...	266
Accumulations of refuse	...	...	...	...	...	30
Additional w.c's. provided	...	...	...	...	...	1
Soil pipes ventilated	...	...	...	...	...	9
Infectious disease discovered	...	...	...	...	...	10
Legal proceedings taken	...	...	...	...	...	7

COMMON LODGING HOUSES.

Total number on register	32
Registered rooms	154
Number of persons certified to accommodate	788

INSPECTION OF COMMON LODGING HOUSES DURING 1907.

Day inspections	2,728
Night inspections	115

NATURE OF SANITARY DEFECTS FOUND, AND OF IMPROVEMENTS EFFECTED :—

W.C.'s cleansed and repaired	22
W.C.'s supplied with water	8
Special ventilation provided to rooms	45
Lime-washed	64
Repaired	31
Accumulations removed	25
Yards paved	18
Infectious disease discovered	8
Additional w.c.'s provided	4

INSPECTION OF SCHOOLS.—A systematic inspection of the Public Elementary Schools in the City is carried out by the Medical Officer of Health, who is Medical Officer to the Education Authority, and reports upon the sanitary condition are made to the Authority from time to time. These reports form a continuous record of the condition of these schools, and of the improvements which have been effected.

In November, 1907, the Board of Education issued a Memorandum on the Medical Inspection of school children in Public Elementary schools, under Section 13 of the Education (Administrative Provisions) Act, 1907. I was subsequently instructed to report upon the best means of carrying out the provisions of the Section and the suggestions of the Board, as expressed in the Memorandum. The following is an extract from this Report :—

In accordance with your instructions, I beg to submit for the consideration of your Subcommittee the following recommendations in connection with the administration of Section 13 (b) of the Education (Administrative Provisions) Act, 1907, which imposes upon the Local Education Authority the duty to provide for the medical inspection, at certain times, of children attending public Elementary Schools. The general principles which should guide the Authority in carrying out this duty are laid down in the Memorandum of the Board of Education on the Medical Inspection of Children in Public Elementary Schools, and the recommendations which I now submit to you are based upon the instructions contained therein.

In common with many of the Local Education Authorities of large towns, your Committee has already taken some steps in the promotion of school hygiene, and medical inspection has been conducted to a limited extent. In October, 1905, I was appointed Medical Officer to the Education Authority, and in that capacity I have systematically, and from time to time, examined and reported upon the sanitary condition of the schools in your district, and have inspected children selected by the teachers as being in some way defective or unwell. In this work I have been assisted by the two Women Inspectors in my Department, who hold the certificate of the Royal Sanitary Institute, and are trained nurses. This assistance has referred more particularly to visiting homes and advising mothers whose children have been found by the teachers to be in a verminous condition. I have issued instructions to teachers, approved by your Committee, in connection with preventing the spread of certain diseases amongst scholars, and on some occasions, when required, have reported to the Committee upon the health of school teachers.

There is also in the Department of the Medical Officer of Health a very complete Bacteriological Laboratory, of which use has been made from time to time in connection with various forms of communicable disease found amongst scholars in schools. This Laboratory (The Cardiff and County Public Health Laboratory) will be of the utmost value in the practical work of the Medical Inspection under the provisions of the new Act.

The duty cast upon the Education Committee by the Act of 1907, is therefore simply an extension and development of the methods already adopted by your Committee. The Board of Education advises in such cases that "the new Act is not intended to supersede the powers and duties which have already been exercised by Local Education Authorities, but that they should use to the utmost extent the existing machinery, developing and supplementing this as required, rather than supplanting it by bringing into existence new agencies, partially redundant and possibly competing."

In the first place, the Board states in the Memorandum that "the work of medical inspection should be carried out under the direct supervision of the Medical Officer of Health, in order to avoid the possibility and inconvenience of a dual jurisdiction in matters connected with the health of scholars, and the sanitary condition of schools, the Board being convinced that this is the only practicable method, and that which is most likely to promote economy, harmony, and efficiency," and further, that "the Local Education Authority should instruct the Medical Officer of Health to advise the Education Committee, and should make him responsible for the new work and for the supervision of such medical assistance as is needed to carry it out."

In organizing any scheme of medical inspection it must be borne in mind that the immediate object is to ascertain the fitness or unfitness of the scholars for school life, to discover precisely in what way the unfitness is manifested, and to indicate how the conditions of school life shall best be adapted to the degree of unfitness. It is not intended that this inspection should be an exhaustive and elaborate medical examination made for purposes of treatment, but to discover whether treatment is required.

The Board of Education proposes to issue shortly an examination form suitable for the purpose of inspection, and in the meantime has indicated the chief matters which should be taken into account in carrying out the inspection, being the points upon which the Board desire as much uniformity as possible. They will be found in Paragraph 11, of the Memorandum.

Dr. Leslie Mackenzie, of the Local Government Board for Scotland, one of the highest authorities upon the subject, is of opinion that ten minutes is the maximum time required for the first inspection, and that subsequent examinations, when the system has become organised, could be carried out in much less time, i.e., three to five minutes. Probably an average of eight minutes per child would be a fair time to allow in arranging the details of a scheme of medical inspection.

At present there is in the City of Cardiff Public Elementary Schools, accommodation for 34,000 scholars, and I am informed by the Director of Education that about 5,000 scholars enter these schools annually, and that about the same number leave school during the school year.

The Board of Education requires not less than three inspections during school life of the child; the first at the time of, or as soon as possible after, admission to school, the second at, or about the third year; and the third at, or about the sixth year of school life. But in the first year (1908) the Board will be satisfied with the inspection of children newly admitted and those leaving school. In this district this will mean an inspection of 10,000 children during the first year. There are approximately 210 school days in the year, and five hours a day available for inspection. Allowing one hour a day for unavoidable delay, one Medical Inspector could not examine more than about 32 children a day, or about 6,720 in the school year (giving an average of 8 inspections per hour).

It must, however, be borne in mind that this medical examination involves also a considerable amount of clerical work, which will occupy time. Delay will also be caused by inviting the presence of the parents at the first inspection, as suggested in the Memorandum.

Having regard to the terms of the Memorandum, I have to suggest the following arrangements for carrying out the provisions of the Act:—

- (1) The Medical Officer of Health, acting as the Chief Medical Officer to the Education Authority, to organize, supervise, and assist in the work of medical inspection, to direct the Assistants in their duties, to report upon the results of the inspection, and to be generally responsible to your Committee for all the medical and sanitary matters connected with the schools under your control.
- (2) Two Medical Assistants to devote the whole of their time to the services of the Education Committee, acting under the direction of the Chief Medical Officer. As regards the qualifications of these assistants the Board states that preference should be given to those (a) holding a diploma in State Medicine or Public Health, (b) who have enjoyed special opportunities for the study of diseases of children, (c) who have had some definite experience of school hygiene.

The subsidiary agencies indicated in the Board's Memorandum comprise the teacher and the school nurse. In countries and places where medical inspection has been systematically carried out, the co-operation of the teachers in recording some of the data has been found most valuable in the direction of reducing the labour and time of medical inspection, in collecting details connected with the name, age, residence, school standard of the pupil, and with many other facts which are within the teacher's knowledge. School nurses, or health visitors, can also assist the medical inspection, in filling up portions of the schedule, and without attempting anything like medical treatment, they can be most useful in visiting the houses of defective children and bringing home to the parents their full responsibilities in connection with the health of their children.

I would advise, therefore, in this connection that it would at first be quite sufficient if the two Women Inspectors now in the Medical Officer of Health's Department devote some further portion of their time to this work, under the Education Committee. By a slight rearrangement of duties, the clerical work which is not done at school could be carried out by the present clerical staff in the Health Department, where office accommodation could be found for the Assistant Medical Inspectors.

With regard to that portion of the Memorandum which deals with the amelioration of physical defects found on inspection, it is clear that no definite scheme can be formulated until complete data are furnished by the findings of the medical inspection. It may, however, be pointed out that without any direct medical treatment on the part of the Education Authority, much physical improvement may be effected, by a greater attention to the sanitation of the school buildings, and to the improvement of the environment of the scholar, which would result from the more frequent visits of a medical man, and that in many cases the same agencies could influence the parents, by indicating the direction in which either medical care or improved hygienic methods were required. From the limited experience which I have already had in school work, I am convinced that in most cases tactful advice and useful counsel are most urgently required, and that generally the parents of defective children would be ready and willing to take steps themselves to bring about the physical improvement of their children if they only knew what steps were necessary.

Any scheme of medical supervision of schools would include some means of providing for uniformity in granting medical certificates of illness of scholars. The present method, or want of method, results in a quite unnecessary reduction in the average attendance at most schools. It would also provide for the administration of the Elementary Education (Blind and Deaf) Act, 1893, and the Elementary Education (Defective and Epileptic) Act, 1899.

During the year the Infants Departments of the following Public Elementary Schools were closed for periods of three weeks on account of an epidemic of measles:—Gladstone Council School, Park Council School, Crwys Road Council School, and Allensbank Council School.

The number of notices for exclusion from Public Elementary Schools during the year 1907 amounted to 1,582, as follows:—

TABLE XIX.

NAME OF SCHOOL.	NOTICES.
Grangetown Council School	152
Severn Road Council School	119
Splott Road Council School	108
Albany Road Council School	104
Marlborough Road Council School	80
Gladstone Council School	75
Crwys Road Council School	74
Moorland Road Council School	72
Court Road Council School	59
Roath Park Council School	59
Radnor Road Council School	52
Stacey Road Council School	50
Wood Street Council School	50
Lansdowne Road Council School	49
Adamsdown Council School	45
St. German's National School	45
Virgil Street Council School	44
St. Peter's Roman Catholic School	33
Crofts Street National School	32
St. John's National School (Canton)	30
St. James' National School	29

NAME OF SCHOOL.	NOTICES.
St. Patrick's Roman Catholic School	27
Grangetown National School	23
Municipal Secondary School	18
Eleanor Street Council School	18
St. Alban's Roman Catholic School	14
St. Andrew's National School	13
St. Mary's Roman Catholic School	12
St. Mary's National School (Clarence Road)	12
St. David's Roman Catholic School	11
South Church Council School	11
Intermediate School for Girls	11
Intermediate School for Boys	10
St. Cuthbert's Roman Catholic School	9
Allensbank Council School	7
St. Monica's National School	7
St. John's National School (Queen Street)	6
St. Mary's National School (Bute Terrace)	4
St. Mary's National School (North Church Street)	4
St. Paul's Roman Catholic School	2
Maindy Council School	1
School for Deaf and Dumb	1
Total	1,582

DISINFECTION.—The disinfection of infected premises and articles is carried out by the Sanitary Authority free of charge. When possible all articles of clothing and bedding which have been in contact with the infected person are removed from the premises to the temporary disinfecting station in Sloper Road, and submitted to disinfection by saturated steam, at a pressure of 30 lbs. on the square inch, in a "Washington Lyon's" high pressure steam disinfecting apparatus. This corresponds to a temperature of 249° F., to which the articles are exposed for half an hour.

Two disinfectors are constantly employed at this station, which comprises the disinfecting chamber constructed as a double cylinder—an inner one containing the articles to be sterilized, surrounded by an outer steam jacket. The apparatus passes through a wall, the two ends of the cylinder opening into different rooms completely separated one from the other. The infected articles are taken to one room, placed in the disinfecting chamber, and when the process is complete, removed into the other room, and subsequently delivered to the owner. A self recording pressure gauge has recently been connected with the apparatus.

Infected premises are disinfected either by fumigation with sulphur dioxide, with formaldehyde, or by means of a spray of formalin. The routine disinfection during the year comprises the following list :—

Class rooms in schools disinfected	170
Houses	1,412
Articles of bedding and clothing disinfected	14,700
" " destroyed	222

SANITARY LEGISLATION.—During the year 1907, several important Acts of Parliament bearing upon Public Health came into force. Amongst these may be mentioned the following :—

- (1) Butter and Margarine Act, 1907.
- (2) Public Health (Regulations as to Food) Act, 1907.
- (3) Factory and Workshop Act, 1907 (dealing with Laundries).
- (4) Notification of Births Act, 1907.
- (5) Education (Administrative Provisions) Act, 1907.
- (6) Public Health Acts Amendment Act, 1907.

Two of these Acts are adoptive, (No. 4) and (No. 6). Your Authority has adopted (No. 4) and has under consideration the adoption of (No. 6).

Under these Acts Local Authorities incur certain duties and obtain other permissive powers.

The Butter and Margarine Act provides that samples of milk, blended butter, margarine cheese, or any article capable of use in the manufacture or adulteration of milk blended butter may be submitted to analysis. The Public Health (Regulations as to Food) Act empowers the Local Government Board to make Regulations for preventing danger to health from the importation, preparation, or storage of food intended for sale for human consumption. The Education (Administrative Provisions Act), extends the powers and duties of Education Authorities. They are required to provide for the medical inspection of school children at stated times, and may make arrangements for attending to the health and physical condition of such children. The Public Health Acts Amendment Act contains a variety of clauses relating to Public Health Administration, which may be adopted by Local Authorities.

CARDIFF AND COUNTY PUBLIC HEALTH LABORATORY.

The Laboratory forms part of the buildings of the University College, Cardiff, and is used for teaching purposes in connection with the Public Health and Bacteriological Departments of the College. It is maintained jointly by the Glamorgan County Council and the Corporation of the City of Cardiff, and the Medical Officers of Health of these authorities act as Directors of the Laboratory, having the use of it for any bacteriological or chemical investigations connected with their administrative work. The Laboratory is under the immediate supervision of the Bacteriologist, H. A. Schölberg, M.B. (Lond.), D.P.H. (Camb.), and J. H. Sugden, M.Sc., F.I.C., acts as Chemist and Assistant Bacteriologist.

The following is the Report of Dr. Schölberg for the year 1907 :—

TO THE CHAIRMAN AND MEMBERS OF THE JOINT LABORATORY COMMITTEE.

GENTLEMEN,

I beg to submit to you the Eighth Annual Report on the work done at Cardiff and County Public Health Laboratory.

The figures and results are based on the entries made in the books of the Laboratory.

The work of the Laboratory has been carried on continuously during the year, and, as usual, shows an increase on that done in the previous year.

Record of work done during 1907 :—

TABLE I.

SPECIMENS AND SAMPLES EXAMINED DURING 1907 :—

Suspected Diphtheria	...	...	...	...	527
Suspected Typhoid Fever	...	...	...	...	448
Alternative Agglutinations	...	...	...	...	553
Sputum for Tubercle Bacilli	...	...	...	...	248
Milk Examinations	...	...	...	...	16
Anthrax—Bovine	...	...	...	...	18
„ Human	...	...	...	...	1
Diseased Meat	...	...	...	...	11
Pus Examinations	...	...	...	...	42
Other Examinations...	...	...	...	...	20

PATHOLOGICAL AND CHEMICAL EXAMINATIONS :—

Urinalyses	...	...	...	...	90
Milk (Unofficial)	...	...	...	...	47
Other Examinations...	...	...	...	...	20

DRINKING WATER :—

Bacteriological Examinations...	...	...	...	...	296
Chemical Examinations	...	...	...	...	156
Waters for Plumbo-Solvent Action	...	...	...	...	34

SEWAGE AND SEWAGE EFFLUENTS :—

Chemical Examinations	...	...	...	...	79
Trade Effluents	...	...	...	...	79

2,685

TABLE II.

Comparison of the records of 1906 and 1907 :—

Nature of Examination.	1906.	1907.	Increase.	Decrease.
Suspected Diphtheria ...	477	527	50	—
Suspected Typhoid Fever...	297	448	151	—
Sputum for Tubercle Bacilli ...	341	248	—	93
Waters—Bacteriological ...	239	296	57	—
„ Chemical ...	189	190	1	—
Diseased Meat ...	29	11	—	18
Anthrax ...	20	19	—	1
Milk Examinations ...	83	63	—	20
Sewages and Effluents ...	235	158	—	77
Other Examinations ...	255	172	—	83
Alternative Agglutinations ...	—	553	553	—
	2,165	2,685	812	292
			Increase—520	

TABLE III.

Table III. shows the contributions of Cardiff and the County towards the three infective diseases ; Diphtheria, Typhoid Fever, and Pulmonary Tuberculosis.

Source.	Nature of Examination.	No. of Positive Results.	No. of Negative Results.	Total.	Percentage of Positive Results.
Cardiff ...	Suspected Diphtheria ...	33	63	96	34.4
County ...	„ „ ...	100	331	431	23.2
Cardiff ...	Suspected Typhoid ...	37	29	66	56.1
County ...	„ „ ...	236	146	382	61.8
Cardiff ...	Suspected Pulmonary Tuberculosis ...	48	117	165	29.1
County ...	„ „ „ ...	23	60	83	27.7

TABLE IV.

Table IV. gives the number of Specimens from Cardiff and the County respectively. The Samples from Swansea and Ebbw Vale are included in the County figures, Sewages, Effluents, and Trade Effluents are grouped under one heading—Effluents ; and Specimens include Examinations other than those grouped under Waters and Effluents. *It will be seen that the total figure for the County is nearly three times greater than for the City of Cardiff.*

Source.	Waters Examined.	Sewages Examined.	Specimens Examined.	Total.
Cardiff ...	176	—	495	671
County ...	310	158	1,546	2,014
	486	158	2,041	2,685

I am, Gentlemen,

Your obedient Servant,

H. A. SCHOLBERG.

VITAL STATISTICS.—The statistics in this report are based upon the Registrar General's estimate of the population of Cardiff for the middle of the year 1907. This estimate is given as 187,620.

The population enumerated at the census at the end of March, 1901, amounted to 164,333 persons, being an increase of 27·5 per cent. since the census of 1891; the rate of increase being considerably less than that of the preceding inter-censal period, which slightly exceeded 55 per cent. It will be remembered that at the census of 1901 the estimate for that year was found to be 36,000 above the actual number of the enumeration, and there is some reason for believing that at the census of 1911 the estimate will again prove too high, although not nearly to the same extent. It is a significant fact that not only has the birth-rate considerably diminished, but the actual number of births has decreased since the year 1902, as will be seen on referring to Table I. in the appendix.

The Registrar General's method of estimating the annual populations of towns is based on the assumption that the rate of increase which had prevailed in the last completed inter-censal period has since been maintained. This method, when applied to the country as a whole, gives fairly accurate results, but when individual towns are under consideration the error may be considerable, and in that case the birth-rates and rates of mortality become more and more unreliable each succeeding year after the last census.

The enumerated population of Cardiff at the census of 1891 was 128,915. At the census of 1901 it was 164,333; whereas the estimated population for that year was 200,808. The effect of this error upon the rates of mortality since 1891 is shown in Table XXVII, in which corrections have been made, based upon the actual increase in the population during the last inter-censal period.

In order to check, to some extent, the accuracy of the official estimate, a local enumeration is made annually in June of the inhabited houses in the district. This number is multiplied by 5·8, the average number of inmates per house, as given in the last census. This method is also to some extent fallacious, as the average number of inmates in 1907 may not correspond with that of 1901. The only satisfactory method of obtaining a more accurate estimate of the population would be by making a more frequent census enumeration. A quinquennial census would remove some of the statistical inaccuracies which are now under the present conditions unavoidable.

The following Table gives the population of Cardiff, at various ages, estimated to the middle of 1907, in accordance with the method adopted by the Registrar General:—

TABLE XX.

AGES.	PERSONS.	MALES.	FEMALES.
All ages	187,620	93,169	94,451
Under 5 years	23,642	11,653	11,989
5-10	21,618	10,817	10,801
10-15	19,424	9,685	9,739
15-20	18,524	8,958	9,566
20-25	18,569	8,726	9,843
25-30	17,170	8,460	8,710
30-35	14,968	7,566	7,402
35-40	13,344	6,822	6,522
40-45	10,898	5,750	5,148
45-50	8,410	4,414	3,996
50-55	6,793	3,483	3,310
55-60	4,950	2,508	2,442
60-65	3,774	1,847	1,927
65-70	2,540	1,153	1,387
70-75	1,635	751	884
75-80	862	374	488
80 years and upwards...	499	202	297

The following is a summary of the vital statistics for the year 1907 :—

Estimated population	...	...	...	...	...	187,620
Number of births	...	...	...	...	...	4,865
Number of deaths	...	...	...	...	...	2,819
Birth-rate per 1,000	...	...	...	...	...	25.9
Death-rate per 1,000	...	...	...	...	...	15.0
Number of deaths under one year of age	...	...	...	...	...	639
Deaths under one year per 1,000 births registered	...	...	...	...	...	131
Zymotic death-rate per 1,000	...	...	...	...	...	1.91

Cause of Death,					Number of Deaths.	Death-rate per 1,000.
Small-pox	...	...	...	...	2	0.01
Measles	...	...	...	...	176	0.94
Scarlet Fever	...	...	...	...	21	0.11
Diphtheria	...	...	...	...	23	0.12
Enteric Fever	...	...	...	...	13	0.07
Whooping Cough	...	...	...	...	56	0.30
Diarrhœa	...	...	...	...	67	0.36
Respiratory Diseases	...	...	...	...	538	2.87
Phthisis	...	...	...	...	220	1.17
Other Tubercular Diseases	...	...	...	...	91	0.48

Birth-rate, death-rate, and analysis of mortality in England and Wales, as compared with Cardiff, during the year 1907 :—

TABLE XXI.

	Annual rate per 1,000 living.										Deaths under one year to 1,000 births.
	Births.	Deaths.	Principal Epidemic Diseases.	Small-Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhœa.	
England and Wales	26.3	15.0	1.26	0.00	0.36	0.09	0.16	0.29	0.07	0.29	118
76 Great Towns	27.0	15.4	1.54	0.00	0.43	0.12	0.17	0.35	0.07	0.40	127
142 Smaller Towns	25.7	14.5	1.29	0.00	0.41	0.08	0.15	0.29	0.07	0.29	122
England and Wales, less the 218 Towns	25.6	14.7	0.91	0.00	0.25	0.06	0.15	0.21	0.06	0.18	106
CARDIFF	25.9	15.0	1.91	0.01	0.94	0.11	0.12	0.30	0.07	0.36	131

MARRIAGES.—The total number of marriages registered during the year 1907, was 1,743 corresponding to a rate of 18.5 persons married per 1,000 living.

The return of the number of marriages in the City of Cardiff during the years 1898—1907, together with the rate of persons married per 1,000 of the population, is given below :—

TABLE XXII.

YEAR.	NUMBER OF MARRIAGES.	RATE PER 1,000 PERSONS LIVING.
1898	1,525	19.8
1899	1,719	21.8
1900	1,706	21.1
1901	1,641	19.8
1902	1,677	19.8
1903	1,668	19.3
1904	1,563	17.7
1905	1,650	18.8
1906	1,769	19.2
1907	1,743	18.5

BIRTHS.—During the year 1907 the births registered in the city numbered 4,865 ; of these 2,423 were males, and 2,442 females. The number of births corresponded to an annual birth-rate of 25.9 per 1,000 persons living, the lowest birth-rate on record.

The birth-rate in England and Wales was 26.3, and in the 76 large towns 27.0 per 1,000 for the corresponding year.

The following Table indicates the gradual and progressive decline which has taken place in the birth-rate in Cardiff during recent years. During the ten years ending 1890, the birth-rate averaged 41.0 per 1,000, as compared with 32.4, the average rate during 1896—1905 :—

TABLE XXIII.

YEAR.	NUMBER OF BIRTHS.	BIRTH-RATE PER 1,000.
1891	4,737	36.5
1892	4,789	35.0
1893	5,121	36.0
1894	5,103	34.2
1895	5,321	34.1
1896	5,591	34.3
1897	5,279	35.1
1898	5,520	35.9
1899	5,309	33.7
1900	5,198	35.2
1901	5,206	31.4
1902	5,278	31.2
1903	5,250	30.4
1904	5,208	29.5
1905	5,140	28.5
1906	5,001	27.2
1907	4,865	25.9

The following Table shows the number of legitimate and illegitimate births, male and female, and the number of deaths under one year per 1,000 births registered, in each Municipal Ward and in the Union Workhouse during the year 1907 :—

TABLE XXIV.

MUNICIPAL WARDS.	Legitimate.		Illegitimate.		Totals.		Totals.	Deaths under One Year per 1000 births registered.
	Males.	Females.	Males.	Females.	Males.	Females.		
Central	94	121	3	4	97	125	222	180
South	124	113	4	3	128	116	224	176
Cathays	297	311	13	7	310	318	628	107
Adamsdown	175	201	2	3	177	204	381	134
Riverside	193	169	2	4	195	173	368	109
Canton	312	346	5	11	317	357	674	102
Grangetown	396	343	4	5	400	348	748	159
Roath	192	199	3	3	195	202	397	121
Park	271	258	3	5	274	263	537	95
Splott	292	301	1	1	293	302	595	135
Union Workhouse	8	3	29	31	37	34	71	—
Totals	2,354	2,365	69	77	2,423	2,442	4,865	131

Throughout the country the birth-rate has of late years declined in a marked manner, as will be seen in the following Table.

The decline commenced about the year 1880, and has continued uninterruptedly since that date. The birth-rate in England and Wales, which averaged 35·5 per 1,000 in the period 1861—1880, fell as follows :—

TABLE XXV.

PERIOD.	BIRTH-RATE.					
1881—1885	33·5 per 1,000
1886—1890	31·4 „
1891—1895	30·5 „
1896—1900	29·3 „
1901	28·5 „
1902	28·6 „
1903	28·4 „
1904	27·9 „
1905	27·2 „
1906	27·0 „
1907	26·3 „

The birth-rate in England and Wales in 1907 was 0·8 per 1,000 below the rate in 1906, and lower than the rate in any other year on record ; compared with the average in the ten years 1897—1906, the rate in 1907 showed a decrease of 2·1 per 1,000.

TABLE XXVI.

Shows the annual birth-rate per 1,000 in some of the large towns in England and Wales for the 10 years 1898 to 1907, inclusive:—

LARGE TOWNS.	Annual birth-rate per 1,000 living.									
	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907
London	29.5	29.4	28.6	29.0	28.5	28.5	28.0	27.1	26.6	25.6
West Ham	30.6	29.7	28.6	35.2	34.1	33.7	32.1	30.5	30.5	28.6
Croydon	25.4	25.1	24.9	26.4	26.1	26.3	26.1	26.4	25.7	25.7
Brighton	24.8	24.9	23.6	24.2	24.3	24.3	23.5	22.9	22.3	21.1
Portsmouth	26.7	26.2	25.7	27.9	27.1	27.9	28.2	27.7	28.6	27.9
Plymouth	29.7	29.8	28.4	26.8	27.0	25.5	25.3	25.6	23.9	23.2
Bristol	28.6	29.2	27.8	27.0	27.5	27.4	26.0	26.9	25.8	24.3
Swansea	28.9	27.7	26.7	30.1	31.1	32.0	30.5	30.9	31.9	32.5
Wolverhampton	35.8	35.3	33.5	31.7	31.6	30.5	29.8	28.7	27.4	26.4
Birmingham	34.0	34.3	32.7	32.1	31.8	31.8	31.5	29.2	29.2	28.3
Norwich	29.9	29.1	28.4	28.4	27.9	27.9	27.6	27.2	26.0	25.0
Leicester	29.6	29.4	28.2	29.0	29.1	27.4	26.6	25.8	25.3	23.2
Nottingham	28.9	28.9	27.7	28.4	27.8	28.3	27.8	26.5	26.5	26.8
Derby	27.4	28.1	26.9	27.8	28.0	27.0	27.2	25.5	25.0	25.1
Birkenhead... ..	30.4	29.9	29.0	29.0	32.7	30.8	33.1	32.0	31.8	31.2
Liverpool	35.2	35.6	36.0	32.1	22.5	33.4	33.5	33.2	32.6	31.8
Bolton	30.9	29.9	34.7	27.5	27.2	27.0	26.9	25.1	25.5	24.4
Manchester	32.7	32.6	32.3	29.1	32.8	32.1	31.3	29.4	29.0	28.7
Salford	34.7	33.9	33.1	29.2	33.8	32.2	31.7	30.5	30.2	29.2
Oldham	25.3	24.8	24.1	24.6	26.1	25.6	24.9	24.3	26.9	26.5
Burnley	27.1	25.3	25.3	27.4	29.1	27.2	27.2	26.5	27.6	28.5
Blackburn	27.1	27.0	25.1	26.5	25.6	25.1	23.5	24.0	25.6	24.8
Preston	31.0	30.1	29.0	30.4	28.9	30.4	28.2	28.1	28.5	26.8
Huddersfield	22.5	23.0	22.8	22.7	24.4	23.8	23.7	23.8	24.2	23.2
Halifax	22.9	23.1	23.1	22.5	21.3	21.1	20.1	19.2	19.2	17.4
Bradford	24.0	23.4	23.1	23.1	23.0	23.3	22.0	21.0	20.6	20.0
Leeds	31.2	30.6	30.4	30.0	29.8	29.4	28.0	27.1	26.1	24.9
Sheffield	33.9	34.6	34.2	33.0	33.4	33.2	31.9	29.7	29.9	30.9
Hull	33.4	34.3	32.9	33.0	32.1	31.3	30.8	29.8	29.6	28.8
Sunderland... ..	35.4	35.7	35.8	35.5	35.9	35.1	34.4	34.2	34.8	34.3
Gateshead	35.5	36.6	36.3	36.8	36.7	35.8	34.4	32.7	31.9	30.7
Newcastle-on-Tyne	31.7	31.4	30.4	32.1	32.6	31.1	30.5	32.1	30.6	29.7
CARDIFF... ..	35.9	33.7	35.2	31.4	31.2	30.5	29.5	28.5	27.2	25.9

DEATHS.—The average death-rate in Cardiff in the ten years 1897-1906 was 15.8 per 1,000. The rate of mortality (15.0 per 1,000) for 1907 was therefore considerably below the average. It corresponded exactly with the death-rate for the whole of England and Wales, and was 0.4 per 1,000 below the rate in the 76 Great Towns.

In the first quarter of the year 1907 the number of deaths registered in the City of Cardiff at all ages, and from all causes was 787, corresponding to an annual death-rate of 16.7 per 1,000 persons living, as compared with 19.0, the average rate in the 76 large towns of England and Wales, and with 14.5, the rate in the corresponding quarter of 1906. The death-rates during the first quarter ranged from 10.9 in Hornsey, 12.3 in Handsworth, 12.5 in Kings Norton, and 14.9 in Leyton, to 23.2 in Oldham and in Preston, 23.7 in Swansea, and 27.1 in Middlesbrough. Of the 787 deaths from all causes 49 were ascribed to the principal infectious diseases; these deaths corresponded to an annual death-rate of 1.0 per 1,000, as compared with 0.8 in the first quarter of 1906, and with 1.4, the rate in the 76 large towns for the same period. The infant mortality in the first quarter was at the

rate of 121 deaths under one year of age per 1,000 births registered, as compared with 128 in the corresponding quarter of 1906. The rate of infant mortality in the 76 large towns in the first quarter was 136 deaths under one year per 1,000 births.

In the second quarter of the year the number of deaths at all ages and from all causes was 620, corresponding to an annual death-rate of 13·2 per 1,000 persons living, as compared with 13·8 per 1,000, the rate in the corresponding quarter of 1906, and with 14·9, the rate in the 76 large towns for the same period. The death-rates in the second quarter ranged from 7·6 in Hornsey, 9·4 in Handsworth, and 10·3 in East Ham, to 20·0 in Sunderland, 20·1 in Wigan, and 21·9 in Middlesbrough. Of the 620 deaths from all causes in Cardiff 31 were ascribed to the principal infectious diseases, corresponding to an annual death-rate of 0·6 per 1,000 persons living, as compared with 0·8, the rate in the second quarter of 1906, and with 1·5, the rate in the 76 large towns. The infant mortality in the second quarter was at the rate of 99 deaths under one year of age to 1,000 births registered, as compared with 100 in the corresponding quarter of 1906, and with 110, the rate in the 76 large towns for the same period.

In the third quarter of the year the number of deaths at all ages and from all causes was 632, corresponding to an annual death-rate of 13·4 per 1,000 persons living, as compared with 12·4 per 1,000, the rate in the third quarter of 1906, and with 12·2, the rate in the 76 large towns for the same period. The death-rates in the third quarter ranged from 6·5 per 1,000 in Hornsey, 7·5 in Kings Norton, 8·0 in Willesden and in Leyton, to 15·6 per 1,000 in Great Yarmouth and in St. Helens, 15·9 in Sunderland, and 16·4 in Liverpool. Of the 632 deaths from all causes in Cardiff 176 were ascribed to the principal infectious diseases, corresponding to an annual death-rate of 3·7 per 1,000, as compared with 2·7, the rate in the third quarter of 1906, and with 1·4, the rate in the 76 large towns for the same period. The infant mortality in the third quarter was in the proportion of 114 deaths under one year of age to 1,000 births registered, as compared with 154, the rate in the third quarter of 1906, and with 109, the rate in the 76 large towns for the same period.

In the fourth quarter of the year the number of deaths at all ages and from all causes was 743, corresponding to an annual death-rate of 15·8 per 1,000 persons living, as compared with 14·7, the rate in the fourth quarter of 1906, and with 15·4 per 1,000, the rate in the 76 large towns for the same period. The death-rate in the fourth quarter ranged from 9·5 per 1,000 in Hornsey, 10·1 in East Ham and in Bournemouth, and 10·6 in Kings Norton, to 19·8 in Stockton-on-Tees, 20·1 in Preston and in Rhondda, 20·7 in Liverpool and in Wigan, and 23·6 in Merthyr Tydfil. Of the 743 deaths from all causes 101 were ascribed to the principal infectious diseases, corresponding to an annual death-rate of 2·1 per 1,000, as compared with 0·9, the rate in the fourth quarter of 1906, and with 1·6, the rate in the 76 large towns, for the same period. The infant mortality in the fourth quarter was in the proportion of 192 deaths under one year per 1,000 births registered, as compared with 157, the rate in the fourth quarter of 1906, and with 154, the rate in the 76 large towns.

The following Table gives the vital statistics in decennial periods since the year 1852, and shows the marked decline in the general death-rate, in the death-rate from zymotic diseases, and also in the birth-rate in successive periods:—

TABLE XXVII.

Years	Population	Births	Birth-rate per 1,000	Deaths	Death-rate per 1,000	Deaths from Zymotic Diseases	Zymotic Death-rate per 1,000
1852—1861	25,889	1,144	44·2	756	29·2	222	8·58
1862—1871	36,152	1,364	37·7	875	24·2	167	4·62
1872—1881	66,639	2,433	36·5	1,335	20·0	218	3·27
1882—1891	104,420	4,166	39·9	2,255	21·6	347	3·32
1892—1901	148,606	5,241	35·3	2,674	18·0	355	2·39
1902	168,909	5,278	31·2	2,865	16·9	459	2·72
1903	172,598	5,250	30·4	2,496	14·4	232	1·34
1904	176,313	5,208	29·5	2,695	15·2	320	1·81
1905	180,054	5,140	28·5	2,443	13·5	216	1·14
1906	183,823	5,001	27·2	2,618	14·2	248	1·34
1907	187,620	4,865	25·9	2,819	15·0	353	1·91

The following Table shows the death-rate in Cardiff from all causes, and from the several infectious diseases, and the rate of infant mortality, during decennial periods :—

TABLE XXVIII.

CAUSE OF DEATH.	ANNUAL DEATH-RATE PER 1,000	
	1881-90	1897-1906
All Causes	20.70	15.80
Small-pox	0.03	0.00
Measles	0.66	0.39
Scarlet Fever	0.41	0.09
Diphtheria	0.20	0.38
Enteric Fever	0.33	0.08
Diarrhœa	0.93	0.65
Deaths under one year per 1,000 births ...	165	145

From this Table it is seen that the rate of mortality has fallen from all these diseases except diphtheria, and it may be mentioned that two diseases, asiatic cholera and typhoid fever, which formerly prevailed extensively, no longer figure in the returns of mortality in either of the decennial periods. The increase in the rate from diphtheria is accounted for by the severe epidemic in 1897-98, when the death-rate reached the high figure of 0.83 per 1,000. However, since the year 1902 the death-rate from diphtheria has rapidly declined as follows :—

YEAR.	DEATH-RATE PER 1,000.
1902	0.52
1903	0.20
1904	0.17
1905	0.12
1906	0.07
1907	0.12

Some idea of the saving of life effected may be formed by estimating the number of deaths which would have occurred during a later decennial period had the high death-rate of an earlier period continued. For instance, by applying the average death-rate of 1881-90, i.e., 21.0 per 1,000, to the average population in the more recent period of 1897-1906 (166,974, the average annual number of deaths in that period becomes 3,506, whereas the actual average, with a death-rate of 16.0 per 1,000, was 2,690. From this it would appear that an average saving of 816 lives annually has been effected.

Chart

SHOWING THE WEEKLY NUMBER OF DEATHS FROM ALL CAUSES, AND
FROM RESPIRATORY DISEASES, PHTHISIS, AND ZYMOTIC DISEASES
DURING THE YEAR 1907.

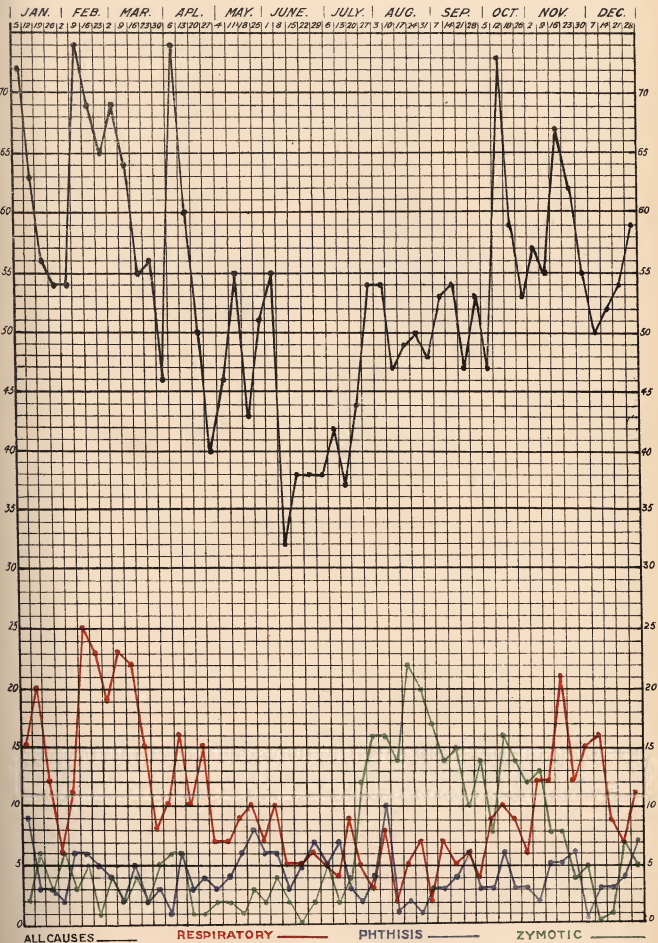


TABLE XXX.

The following Table shows the distribution of mortality from the chief zymotic diseases, phthisis, diseases of respiratory organs, and from other causes, in streets in Cardiff during the year 1907 :—

CENTRAL WARD.

STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhoid Fever.	Diarrhea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Blackweir Terrace...	1	1
Bridge Street	2	...	...	...	...	...	...	1	3	6
Butc Street	2	2
Bute Terrace	1	3	4
Canal Street	1	...	...	...	...	...	...	1	...	2
Cathays Park	1	1
Charles Street	1	...	...	2	...	...	1	1	2	7
Charlotte Street	1	1
Colum Road	2	3	5	
Custom House Street	1	1
David Street	1	3	4	
Davies' Court	1	...	1	1
Duke Street	1	1
Dumfries Place	2	2	
East Terrace	1	...	...	...	...	...	1	3	5	
Elbenezer Street	1	1	2	
Edward Street	1	...	2	3
Eisteddfod Street	4	...	4	
Frederick Street	2	...	1	...	2	5	
Glamorgan Canal	2	2	
Gough Street	1	...	1	...	2	2	6
Guildford Crescent	1	1	
Havelock Street	1	3	4	
Hill's Terrace	1	...	1	2
Homfray Street	1	3	4	
Little Frederick Street	2	...	...	...	...	...	...	...	2	
Love Lane	1	1	2	
Marlborough Terrace	1	...	...	...	...	1	2
Mary Ann Street	1	...	5	6
Millicent Street	1	7	8	
Nazareth House	1	12	14	
North Road	2	4	6	
Park Grove	2	2	
Park Place	1	1	
Park Street	1	...	...	...	...	4	4	
Pembroke Terrace	3	3	
Police Station	1	1	
Price's Court	1	1	
Quay Street	1	1	
Queen Street	1	...	1	
Raven Street	1	1	2	
Richmond Terrace	1	1	
Roberts' Court	1	...	1	
Rodney Street	1	...	...	...	...	...	...	4	5	
Ruperra Street	1	...	...	1	1	3	
Scott Street	1	...	...	...	1	1	...	3	6	
St. Andrew's Crescent	2	2	
St. Mary Street	1	1	
Thomas Terrace	1	...	1	
Tredegar Street	1	...	...	...	...	...	1	6	8	
Union Street	1	...	...	...	...	1	...	3	5	
Westgate Street	1	1	
Wharton Street	1	...	1	
Windsor Place	2	2	
Wood Street	1	2	3	
Wyndham Arcade	1	1	
Totals	11	...	1	7	...	4	7	30	113	173

SOUTH WARD.

STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhoid Fever.	Diarrhoea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Adelaide Street	2	5*	7
Alice Street	1	...	...	...	...	...	...	...	...	1
Angelina Street	5	...	...	...	...	...	...	4	6	15
Bute Street	2	...	...	...	...	...	2	7	7	13
Canal Parade	1	...	2	3
Christina Street	4	1	...	...	...	...	1	3	5	14
Clarence Embankment	1	...	...	...	...	...	1
Crawshay Street	1	1
Crichton Place	4	4
Crichton Street	1	...	...	...	1	2	1	5
Dudley Place	1	1
Dudley Street	1	...	1
Eleanor Street	1	...	1	2
Evelyn Street	1	...	...	...	...	1	1	...	4	7
Frances Street	2
George Street	3	1	4
Glamorgan Canal	2	2
Hannah Street	1	1
Harpur Street	1	1
Harrowby Street	1	...	...	...	...	1	...	1	4	7
Henry Street	1	1
Herbert Street	1	...	5	6
Hunter Street	2	2
James Street	1	...	...	...	...	1	2
Loudoun Square	2	2	4	8
Louisa Street	1	1	5	7
Margaret Street	1	1
Maria Street	1	3	4
Mount Stuart Dry Dock...	3
Mount Stuart Square	1	...	3	4
Nelson Street	2	2
North Church Street	3	3
Patrick Street	2	1	3
Peel Street	1	...	1	2
Penarth Road	1	...	1
Percy Street	1
Pomeroy Street	1	...	...	...	...	...	...	...	2	3
River Taff	1	1
Royal Hamadryad Seamen's Hospital	1	...	3	4
Sophia Street	1	3	2	6
South Church Street	1	...	2	3
South William Street	2	...	...	1	...	...	...	1	5	9
Stuart Street	1	1	3	5
Tresillian Terrace	2	2
West Church Street	1	...	...	...	...	2	3
West Wharf	3	3
Windsor Esplanade	1	1
Totals	17	1	1	4	...	2	17	30	110	182

CATHAYS WARD.

STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhoid Fever.	Diarrhoea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Alexander Street	1	1
Barracks	2	3	5
Brithdir Street	2	2
Cairns Street	2	...	...	...	...	...	...	2	8	12
Cathays Terrace	1	...	...	...	...	...	1	8	12	22
Catherine Street	2	...	2
Clun Terrace	3	3
Coburn Street	2	9	11
Cogan Terrace	1	...	...	...	1	1	2
Cranbrook Street	3	3
Crwys Road	3	3	6
Cwmndare Street	1	...	...	1	1	1	4
Daniel Street	1	2	...	3	6
Darren Street	1	...	...	...	...	...	1	1	...	3
Dogfield Street	1	...	5	6
Fair Oak Road	1	2	3
Fitzroy Street	2	2
Flora Street	3	5	8
Gelligaer Street	1	...	1	2
Gladys Street	1	1
Glynrhondda Street	3	3
Gwenynth Street	2	2
Harriett Street	1	3	4
Hirwain Street	1	...	1
Letty Street	2	2
Lisvane Street	1	...	...	...	...	...	...	1	...	2
Llanbleddian Gardens	2	2
Llandough Street	1	1	2
Llantrisant Street...	1	3	4
Llantwit Street	1	1
Malefant Street	1	...	...	...	...	...	...	2	6	9
Manor Street	2	1	3
May Street...	...	2	...	...	...	...	1	2	4	5	14
Merthyr Street	4	...	...	...	...	...	1	3	2	10
Minister Street	1	...	...	...	...	...	...	...	...	1
Minsky Street	1	...	...	...	...	1	...	1	...	3
Miskin Street	1	1	3	3	8
Monthermer Road	5	5
Mundy Place	4	4
Norman Street	1	...	...	...	...	...	...	1	...	2
Pentryeh Street	1	1
Richard Street	1	1	4	6
Robert Street	2	1	...	...	...	...	2	2	5	12
Salisbury Road	1	...	2	3
Spencer Street	1	1
Tewkesbury Street	1	...	...	1	3	5
Tesiger Street	1	...	...	...	1	5	7
Treherbert Street...	4	4
Treorky Street	1	...	1
Whitechurch Road...	1	...	1	2
Woodville Road	1	...	...	...	4	9	14
Wyeveerne Road	1	1	3	5	10
Totals	17	1	...	3	...	6	17	60	148	252

ADAMSDOWN WARD.

NAME OF STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhoid Fever.	Diarrhoea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Adam Street	1	5	4	6	16
Ascog Street	1	...	...	1	...	...	...	...	...	2
Augusta Street	1	...	...	...	1	2	4
Cardiff Railway	1	1
Channel Dry Dock	2	2
Clifton Street	1	...	1	...	...	...	1	3	6
Clyde Street	1	...	1	2	4
Comet Street	1	...	...	...	...	1	1	...	1	4
Constellation Street	1	3	4
Copper Street	1	...	...	1
Cumnock Place	2	1	3
Cumnock Terrace	1	...	...	...	...	...	...	1	1	3
Cumrae Street	2	2
Davis Street	2	2
Dowlais Iron Works	1	1
Duffryn Street	1	...	...	...	...	...	...	...	1	2
East Dock	8	8
Eclipse Street	1	...	...	...	...	...	1	...	3	5
Ellen Street	1	1	...	4	7
Fitzalan Place	1	1	2
Fitzalan Road	1	1	2
Four Elms Road	1	1
Galston Place	1	...	...	...	...	...	...	...	...	1
Garth Street	1	1
Glossop Road	1	...	1
Godfrey Street	2	2
Gwendoline Street	3	3
Howard Gardens	1	1
Infirmery	2	...	5	10	94	111
Infirmery, On way to	3	3
Iron Street...	1	...	1	2	4
Ivor Street...	3	3
Kerryeroy Street	2	2
Kilcattan Street	1	1
Kingarth Street	1	...	...	1
Lead Street	3	1	4
Longcross Street	1	...	1
Metal Street	2	...	...	1	3	5	11
Meteor Street	1	...	1
Moirra Place	1	...	...	...	...	...	...	1	3	5
Moirra Street	4	4
Moirra Terrace	1	...	1
Moon Street	1	1
Morgan Street	1	2	3
Newport Road	2	2
North Luton Place	1	1	2	4
North William Street	5	1	6
Orbit Street	1	...	...	...	...	...	...	1	...	2
Queen Alexandra Dock	2	2
Pellett Street	1	...	1	2
Pendoylan Street	2	...	...	...	...	...	...	...	3	5
Pier Head	1	1
Planet Street	1	1	1	3
Platinum Street	1	1
Prince Leopold Street	1	1	...	2
Prison Quarters	1	1
Prison, H.M.	2	2
Roath Dock	12	12
Roland Street	1	...	...	...	...	...	...	...	7	8
Rosemary Street	1	...	1
Sandon Place	1	...	4	6	11
Sandon Street	1	...	1	2
Sanquahar Street	2	1	1	4
Sea, At	1	1
South Luton Place	1	...	2	3
System Street	4	4
Taff Street	3	3
Tin Street	1	1
Tyndall Street	1	...	1	4	6
Victoria Street	1	1
West Dock...	7	7
West Luton Place	1	1
Windsor Road	1	...	1	5	7
Totals	11	1	...	5	2	8	24	54	247	352

RIVERSIDE WARD.

NAME OF STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhoid Fever.	Diarrhoea.	Phtisis.	Respiratory Diseases.	Other Causes.	Total.
Ann Street	1	1	2
Beauchamp Street	2	2	2
Blackstone Street	1	1	1
Brook Street	1	...	5	6
Cathedral Road	4	4	4
Clare Gardens	1	...	...	...	1	1	1
Clare Road	1	...	1	1
Clare Street	1	1	3	4
Coldstream Terrace	1	1	1
Cowbridge Road	2	4	6
Craddock Street	1	1	3	2	7	7
Deburgh Street	3	3
De Croche Place	1	...	...	1	1
Dispenser Gardens	1	1	1
Eldon Street	1	2	3	6	6
Fitzhammon Embankment	1	1	2	2
Gloucester Street	3	1	4	4
Green Street	1	...	1	2	2
Halket Street	...	1	...	...	...	...	1	...	1	3	3
Hamilton Street	2	1	3	3
Heath Street	2	1	3	3
Iestyn Street	2	2	2
Iestynian Avenue...	1	1	1
Kings Road	3	10	13	13
Lewis Street	1	2	...	3	3
Lower Cathedral Road	2	2	2
Machen Place	2	2	2
Mark Street	2	2	2
Mortimer Road	...	1	...	...	...	...	...	...	1	2	2
Neville Place	1	...	1	1
Neville Street	1	1	2	2
North Morgan Street	1	1	1
Picton Place	...	1	...	...	...	...	...	2	1	4	4
Pitman Street	1	1	1
Plantagenet Street	3	1	2	6	6
Plasturton Avenue	1	...	1	...	2	4	4
Pontcanna Street	1	1	1
Pontcanna Terrace	1	1	2	2
Rawden Place	1	1	1
Ryder Street	1	1	1
Severn Road	1	3	5	9	9
Smeaton Street	1	1	1
South Morgan Street	...	1	...	...	...	...	1	3	3	8	8
Talbot Street	5	5	5
Teilo Street	1	1	1
Telford Street	1	1	1
Trevethick Street	1	...	...	...	...	1	1
Tudor Road	1	1	...	8	10	10
Union Workhouse	...	12	...	...	...	4	41	48	215	320	320
Union Workhouse, On way to	1	1	1
Wellington Street	...	2	...	...	...	...	1	2	1	6	6
Wells Street	1	...	...	5	6	6
Wyndham Crescent	1	1	6	8	8
Wyndham Place	1	...	...	1	1
Wyndham Road	1	6	7	7
Wyndham Street	1	2	3	3
Totals	...	18	...	...	1	1	7	59	87	329	502

CANTON WARD.

STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhoid Fever.	Diarrhoea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Albert Street	1	...	...	1	2	2	6
Aldsworth Road	1	...	...	...	...	...	1	2	2	6
Alexandra Road	3	3
Anglesey Street	1	...	1	2
Atlas Place	1	...	...	1
Atlas Road	2	2	4
Bloom Street	1	1
Brecon Street	2	2
Brunswick Street	1	1
Burlington Terrace	1	...	...	2	3
Cardmarthen Street	1	...	1
Chancery Lane	1	...	1	2	4
Clive Road	1	...	6	8
Conway Road	2	2	4
Conybeare Road	3	2	5
Cowbridge Road	3	11	14
Cumberland Street	1	...	...	...	...	...	...	...	...	1
Daisy Street	1	...	5	6
Denton Road	1	...	...	...	...	...	1	...	2	4
Egerton Street	1	1
Egham Street	2	2
Eldon Street	2	...	...	...	2	2	3	9
Ethel Street	1	...	...	1	...	...	1	5	6	14
Forrest Road	1	...	2	3
Glamorgan Street	1	...	...	...	...	...	...	1	5	7
Glynne Street	1	...	...	...	...	...	2	...	1	4
Gray Street	1	...	...	...	...	...	...	...	3	4
Grosvenor Street	1	...	1
Hanover Street	1	1
Harvey Street	1	...	...	...	...	...	...	...	4	5
Ivy Street	1	1
Kingsland Road	1	1
Lansdowne Road	2	6	8
Leckwith Road	1	...	1	3	5
Lincoln Street	1	...	...	1	...	...	...	1	1	4
Lionel Road	1	...	...	...	1	...	2
Littleton Street	1	...	1
Llandaff Road	1	5	5	11
Llanfair Road	2	...	3	5
Loftus Street	1	2	3
Nesta Road	1	1
Norfolk Street	1	...	...	1
Orchard Place	1	1	2
Pembroke Road	1	...	...	...	...	...	1	2	1	5
Pencisely Road	1	...	...	...	...	...	1	2
Penhill Road	1	1
Penlline Road	1	...	...	...	...	...	2	3
Pontcanna Place	1	...	3
Preswylfa Street	1	1	2
Radnor Road	1	...	...	...	...	...	...	...	1	2
Railway Terrace	1	1	2
Rectory Road	3	5	8
Rolls Street	1	...	...	...	...	...	...	...	1	2
Romilly Crescent	1	4	5
Romilly Road	1	...	...	...	...	...	2	...	4	7
Severn Road	1	1	4	6
Springfield Place	1	...	...	...	1	3	5
Staines Street	1	...	1
Surrey Street	1	...	1	2
Theobald Road	2	...	5	7
Thornhill Street	3	3
Tintern Street	1	...	...	...	1	...	2
Turner Road	1	...	...	...	1	...	2
Wellington Street	1	1
Wells Street	1	1	3	5
Westbury Terrace	1	1	2
Westmorland Street	1	3	4
Windway Road	1	1
Totals	13	...	4	7	...	3	25	56	147	255

GRANGETOWN WARD

STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhoid Fever.	Diarrhea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Allerton Street	1	...	...	...	...	1	6	8
Amherst Street	1	...	3	4
Andrew's Terrace	2	...	...	...	...	...	...	...	...	2
Bedwas Street	1	1
Bishop Street	1	1
Blaenclydach Street	1	1	2
Bradford Street	1	1	2
Bromfield Street	1	...	...	...	...	1	6	7
Bromsgrove Street	1	...	...	...	...	2	1	4
Cambridge Street	1	3	4
Chester Place	1	...	...	1	2
Chester Street	1	4	5
Clare Road	1	...	3	7	11
Clive Street	2	...	...	...	...	1	2	4	12	21
Clydach Street	1	...	...	...	...	1	2
Coedcae Street	2	2
Compton Street	2	...	...	...	...	...	...	1	2	5
Cornwall Street	2	...	...	...	...	...	1	1	6	10
Corporation Road	3	...	...	1	...	1	1	2	7	15
Court Road	2	...	...	...	...	...	1	2	1	6
Cymmer Street	1	1
Devon Street	1	...	...	...	...	...	...	...	1	2
Dorset Street	1	...	...	...	...	...	1	...	6	8
Durham Street	1	1
Earl Street	1	...	...	...	...	...	2	2	2	7
Ferndale Street	2	3	5
Ferry Road	1	...	2	1	1	4	9
Forrest Street	1	1
Franklin Street	1	...	2	1	4
Grange Gardens	1	...	...	...	...	...	...	2	3
G.W.R. Crossing	1	1
Hereford Street	1	1	5	7
Hewell Street	1	...	...	...	2	1	4
Holmesdale Street	3	...	1	1	...	...	...	1	3	9
Kent Street	1	...	...	...	2	5	8
Knole Street	1	...	...	1	...	...	...	2	3	7
Llanbradach Street	2	...	...	...	...	...	...	3	3	8
Llanmaes Street	1	...	...	...	...	1	...	1	...	3
Lucknow Street	1	...	...	1	1	1	4
Ludlow Street	1	...	...	...	...	...	...	...	1	2
Madras Street	2	3	...	5
Maitland Place	1	...	...	1
Monmouth Street	2	...	2
Newport Street	2	...	...	...	...	...	...	...	...	2
North Street	2	1	3
Oakley Street	1	...	2	7	10
Paget Street	1	3	1	5
Penarth Road	4	8	4	16
Penhevad Street	1	3	4
Pentre Street	1	1
Pentrebane Street	7	7
Redlaver Street	1	...	...	3	4
River Taff	1	1
Rookwood Street	2	2
Rutland Street	1	...	...	...	2	...	3
Saltmead Road	1	...	1	4	6
Sanatorium ...	2	...	17	10	...	7	...	...	...	...	36
Seven Oaks Street	1	6	7
Somerset Street	3	5	8
Stockland Street	1	...	...	...	1	9	11
Stoughton Street	1	1	1	3	6
St. Fagan's Street	2	...	2
Taff Embankment	2	2	4
Thomas Street	1	...	...	...	...	...	...	2	2	5
Tynant Street	1	2	3
Van Street	1	...	3	4
Warwick Street	2	2
Wedmore Road	1	...	...	...	2	4	7
Totals ...	2	27	18	13	11	7	12	22	80	184	376

ROATH WARD.

STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhoid Fever.	Diarrhoea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Agate Street	1	...	1	2
Albany Road	1	4	5
Arthur Street	1	1	2
Balaclava Road	1	...	...	...	...	...	...	...	1	2
Beresford Road	1	...	...	1	...	2	4
Bertram Street	1	...	...	3	2	6
Blanche Street	1	...	1	2
Blenheim Road	1	1
Booker Street	1	...	...	1
Bradley Street	1	...	...	...	1
Broadway	2	2	11	15
Cecil Street	2	...	...	...	...	1	...	1	...	4
Claude Road	1	2	4	7
Clifton Street	1	...	1	2	4
Connaught Road	1	...	...	3	4
Cottrell Road	5	5
Crofts Street	2	...	...	...	...	...	...	...	1	3
Diamond Street	1	1	1	1	4
Elm Street...	2	2	4
Emerald Street	2	...	...	...	...	...	1	1	4	8
Helen Street	2	...	...	...	...	1	...	3	12	18
Ladysmith Road	1	...	...	...	...	...	...	...	...	1
Mafeking Road	1	...	2
Marlborough Road	2	2
Newport Road	1	1	4	6
Nora Street	2	...	...	...	...	...	1	4	11	18
Oakfield Street	1	...	...	...	...	1	2
Partridge Road	1	3	4
Pearl Street	4	...	...	...	...	1	...	2	13	20
Penylan Road	2	2
Richards Terrace	2	2
Ruby Street	2	3	5
Sapphire Street	5	5
Sploft Road	1	1
Spring Gardens Place	1	1
Stacey Road	2	...	1	3
Theodora Street	2	...	...	...	...	...	...	2	5	9
Topaz Street	1	...	...	...	2	5	8
Wellfield Road	1	1
Woodcock Street	1	...	...	...	...	...	1
Totals	18	...	...	4	...	8	13	33	119	195

PARK WARD.

NAME OF STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhoid Fever.	Diarrhoea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total.
Albany Road	1	1
Alfred Street	1	1	6	8
Angus Street	1	...	2	3
Arabella Place	1	1
Arabella Street	2	...	...	2	...	...	1	3	7	15
Arran Street	1	4	5
Bangor Street	1	1	2
Bedford Place	1	2	3
Bedford Street	2	...	...	...	...	...	...	1	7	10
Braeval Street	1	...	1
Byron Street	1	...	...	...	...	...	4	...	4	9
City Road	1	...	...	...	...	...	3	5	6	15
Convent	1	...	1	...	1	3
Crofts Street	2	...	2
Crwys Place	2	...	...	...	...	...	...	...	1	3
Crwys Road	1	...	...	...	...	...	...	...	1	2
Cyfarthfa Street	2	...	...	...	1	5	8
Dalcross Street	1	1
Diana Street	4	4
Donald Street	2	1	6	9
Elm Street	1	...	...	...	1	...	...	1	5	8
Essich Street	1	1
Fair Oak Road	2	2
Glenroy Street	1	1	...	...	...	2	5	9
Gordon Road	2	1	1	4
Inverness Place	1	...	...	1	3	8	13
Keppoch Street	2	4	6
Lily Street	1	1
Lochaber Street	1	1
Mackintosh Place	1	1	...	8	10
Milton Street	1	...	...	...	...	...	...	4	7	12
Montgomery Street	3	3
Moy Road	4	2	6
Newport Road	2	2
Ninian Road	1	1	6	8
Northcote Street	1	1	2
Oxford Street	1	1
Penlline Street	1	1
Penywan Road	3	3
Plasnewydd Place	1	1
Plasnewydd Road	1	...	...	...	...	...	...	3	3	7
Richmond Crescent	1	1
Richmond Road	8	8
Rose Street	1	...	1	2
Russell Street	1	2	2	5
Shakespeare Street	3	4	7
Shirley Road	1	1
Southey Street	2	2
Strathnairn Street	4	3	7
St. Peter's Street	1	...	1
Talworth Street	4	4
Tavistock Street	1	...	...	1
The Parade	1	1
The Walk	1	1
Treharris Street	5	5
Upper Kincaig Street	1	...	...	...	1
Vere Street	1	...	...	...	...	...	...	...	1	2
Wellfield Road	1	3	4
Werfa Street	3	3
Totals	13	...	1	6	2	2	21	51	166	262

SPLOTT WARD.

STREET.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhoid Fever.	Diarrhoea.	Phthisis.	Respiratory Diseases.	Other Causes.	Total
Aberdovey Street	1	...	1
Aberystwith Street	...	1	...	1	...	...	...	...	1	1	4
Adeline Street	...	2	...	...	...	...	1	2	4	1	9
Bridgend Street	...	1	...	2	...	...	2	...	1	5	11
Burnaby Street	1	2	3
Caerphilly Street	1	1	1	3
Cameron Street	1	1
Carlisle Street	6	7	13
Cornelia Street	1	...	1
Coveny Street	1	...	2	2	5
Elaine Street	1	1
Enid Street	1	...	1	2	4
Eyre Street	...	1	...	...	1	...	...	...	...	3	5
Florence Street	1	1
Gwendoline Street	4	4
Habershon Street	...	3	...	...	2	...	...	1	1	3	11
Janet Street	...	1	...	...	1	...	...	1	2	6	11
Lascelles Road	1	1
Layard Street	...	5	...	...	...	...	1	...	...	2	8
Llanelly Street	3	...	1	3	7
Marion Street	1	3	6	10
Menelaus Street	1	2	3
Milford Street	1	3	4
Moorland Road	2	5	7
Moorland Road, Back of	1	1
Ordell Street	...	4	...	...	...	...	...	...	3	3	10
Pontypridd Street	2	...	1	...	3	1	7
Portmanmoor Road	...	1	...	...	...	...	1	...	3	5	10
Railway Street	...	3	...	...	...	1	...	3	4	16	27
Seymour Street	...	1	...	...	...	...	...	...	...	1	2
Singleton Road	1	...	...	...	1	4	6
Splott Road	3	7	10
Swansea Street	...	4	...	...	...	...	1	...	2	2	9
Swinton Street	1	...	...	...	1
Tenby Street	1	...	...	...	...	1	2
Tide Field	1	1
University Place	1	3	4
Walker Road	1	...	1	2	4
Wilson Street	...	1	...	...	...	...	...	...	1	...	2
Wimborne Street	...	3	...	...	...	...	...	1	4	1	9
Totals	...	31	...	3	8	1	14	10	56	110	233

TABLE XXXI.

Shows the annual death-rates per 1,000 in some of the large towns in England and Wales for the 10 years, 1898—1907, inclusive:—

LARGE TOWNS.	Annual death-rate per 1,000 living.									
	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
London	18.7	19.8	18.8	17.6	17.7	15.7	16.1	15.6	15.7	14.6
West Ham	15.4	16.7	15.9	18.0	17.1	15.3	16.7	15.5	15.3	14.6
Croydon	13.9	15.0	14.6	12.9	14.0	11.8	13.8	12.7	13.4	12.4
Brighton	16.9	19.0	17.8	16.5	15.8	14.3	16.6	10.9	14.4	14.7
Portsmouth	16.3	19.7	17.3	17.9	16.8	14.7	16.8	16.6	14.8	16.0
Plymouth	19.5	21.7	20.8	17.9	17.0	16.5	18.7	16.8	16.4	14.7
Bristol	17.2	18.2	16.7	16.0	17.4	14.3	15.4	14.7	14.3	13.2
Swansea	18.6	18.1	17.1	18.6	16.1	18.6	17.7	16.5	17.9	17.9
Wolverhampton	21.3	21.8	22.5	16.9	16.4	15.5	14.6	14.8	14.7	15.1
Birmingham	20.0	20.8	21.5	20.5	18.6	17.8	19.3	16.1	16.7	16.2
Norwich	19.0	17.3	17.6	18.7	16.7	15.2	18.2	16.5	16.7	14.6
Leicester	16.9	17.7	17.4	15.9	14.9	14.2	14.5	13.4	14.4	12.7
Nottingham	17.7	20.0	19.1	18.5	16.9	16.9	17.5	16.6	16.0	17.5
Derby	16.8	16.9	17.5	15.2	13.9	13.6	15.1	15.0	14.0	14.3
Birkenhead	17.4	19.2	16.8	18.7	17.7	16.8	19.8	15.3	17.7	15.4
Liverpool	24.0	26.4	25.7	22.3	22.5	20.5	21.9	19.2	20.3	19.0
Bolton	19.4	19.9	19.5	18.2	16.9	17.5	16.9	15.4	15.5	16.8
Manchester	21.9	24.6	24.1	22.1	20.0	19.7	21.3	18.0	19.0	18.1
Salford	22.7	23.8	25.1	21.7	19.3	19.0	21.0	17.1	18.5	17.7
Oldham	17.6	20.5	19.6	19.6	19.1	18.6	18.3	18.8	18.8	19.4
Burnley	16.3	19.6	16.3	19.0	19.5	19.2	20.0	16.5	19.7	17.6
Blackburn	18.4	19.1	20.5	19.5	16.9	15.7	17.2	16.4	16.4	16.9
Preston	19.3	22.8	24.0	21.0	19.1	18.7	17.8	16.4	19.2	19.1
Huddersfield	15.9	16.2	16.6	16.7	17.8	16.7	17.5	16.9	17.3	16.9
Halifax	17.9	18.3	18.1	16.4	15.7	15.0	15.5	15.3	15.5	14.3
Bradford	17.6	18.4	16.4	16.8	15.8	16.4	17.5	15.1	16.1	14.8
Leeds	19.2	19.1	20.0	19.3	17.6	16.6	17.9	15.3	15.8	15.3
Sheffield	20.2	22.2	22.6	20.4	17.1	18.6	16.8	17.0	16.7	17.1
Hull	18.4	19.3	19.7	18.6	17.2	16.9	18.0	16.0	17.0	16.1
Sunderland	22.6	21.5	21.4	21.4	19.5	19.9	19.4	18.6	18.5	19.2
Gateshead	20.6	18.8	19.0	21.6	17.7	16.7	18.5	15.5	16.4	15.4
Newcastle-on-Tyne	21.4	20.6	19.5	21.9	19.9	19.2	19.4	16.8	17.1	15.9
CARDIFF	17.0	18.1	16.5	15.7	16.9	14.4	15.2	13.5	14.2	15.0

INFANT MORTALITY.—The rate of infant mortality in England and Wales in the year 1907, calculated in the proportion of deaths under one year of age to 1,000 births registered, was as follows:—

	Deaths of infants under 1 year per 1,000 births.
England and Wales	118
76 great towns	127
142 smaller towns	122
England and Wales, less the 218 towns	106
CARDIFF	131

From Table XXXVI, it will be seen that the rate of infant mortality in Cardiff compares favourably with that in the large towns.

TABLE XXXII.

LARGE TOWNS.		CARDIFF.	
Year.	Deaths under one year to 1,000 births registered.	Year.	Deaths under one year to 1,000 births registered.
1881—1890	162	1881—1890	165
1891—1900	172	1891—1900	161
1901	168	1901	148
1902	145	1902	145
1903	144	1903	122
1904	160	1904	144
1905	160	1905	118
1906	145	1906	134
1907	127	1907	131

In Cardiff the average rate of infant mortality during the ten years 1897—1906 was 145 per 1,000 births registered.

The following Table shows the rate of infant mortality in England and Wales since 1876 :—

TABLE XXXIII.

PERIODS.	DEATHS UNDER ONE YEAR TO 1,000 BIRTHS REGISTERED.				
1876—1880	144
1881—1885	138
1886—1890	145
1891—1895	150
1896—1900	156
1901	151
1902	—	...	133
1903	132
1904	146
1905	146
1906	133
1907	118

From the foregoing tables it will be seen that the rate of infant mortality is practically stationary in England and Wales, and that no decline is shown in the large towns generally, and in some cases an actual increase is recorded.

The slight annual fluctuations which occur are for the most part due to varying meteorological conditions.

The chief causes of death amongst infants under one year in Cardiff in 1907 are given in the following table :—

TABLE XXXIV.

CAUSES OF DEATH.	DEATHS UNDER ONE YEAR OF AGE.				
Premature birth	95
Atrophy and debility	86
Pneumonia	83
Bronchitis	54
Diarrhœa	53
Convulsions	47
Measles	35
Whooping Cough	30

Usually the rate of infant mortality is largely influenced by the excessive fatality of diarrhoeal diseases in the summer months. This was, however, below the average, and the diarrhoeal death-rate in 1907 corresponded almost exactly with that in 1906; the low rate in both cases being due to a cool and wet summer.

In the year under consideration measles and whooping cough were responsible for a large number of deaths. Had it not been for the extensive epidemics of these diseases the rate of infant mortality would probably have been the lowest on record. If the 65 deaths under one year of age from these diseases be excluded from the calculation, the mortality becomes 117 per 1,000 births registered instead of 131.

A reference to Table V. in the appendix will show that the first few weeks is the most critical period of infant life. Of the 639 deaths under one year of age, 189, or 29·5 per cent., were under four weeks old; of the 189 deaths under one month 115, or 60·8 per cent., were in their first week of life. Of these 115 deaths 69, or 60 per cent., were ascribed to premature birth, and 22, or 18 per cent., to atrophy. Obviously, most of these infants were born in a condition unfit for extra-uterine life. To these should be added 57 still births notified by midwives.

It is clear, therefore, that in any scheme for reducing the rate of infant mortality, the health of the mother during pregnancy must be taken into consideration, and measures at present adopted must be extended so as to include instruction to pregnant mothers in the preservation of their own health, as well as that of their children. It is probable that the machinery provided by the Midwives Act, 1902, will be available in this direction. At the present time midwives send to the Medical Officer of Health a weekly return of all births occurring in their practice, and each home in which a birth occurs, where no medical man is in attendance, is visited by a lady health visitor, by whom advice is given in the feeding and care of the infant. When necessary, the visits are repeated, and practical instruction in the rearing of infants is systematically carried on. These methods will of course be more complete when an earlier notification of births comes into operation by the adoption of the Notification of Births Act, 1907.

The following Table shows the nature of the food of 2,140 infants visited within one month of birth:—

TABLE XXXV.

NATURE OF FOOD.							NUMBER.
Breast fed	...	...	...	...	...	...	1,546
Breast fed and other food	...	...	...	...	...	...	369
Condensed milk	...	...	...	...	...	...	69
Condensed milk and other food	...	...	...	...	...	...	17
Cow's milk	...	...	...	...	...	...	92
Cow's milk and other food	...	...	...	...	...	...	47
Total	...	...	...	...	...	...	2,140

The following is a summary of the methods which should be adopted with a view to reducing infant mortality:—

- (1) A further development of the present system of visits by Women Inspectors, with the object of encouraging breast feeding of infants, and of educating mothers in the best means of preserving their own health as well as that of their children.
- (2) A better control and supervision of the milk supplied to infants artificially fed.

(3) Special attention to the cleansing of streets and flushing of street gullies, and the removal of all offensive accumulations during the summer months.

(4) The adoption of the sanitary clauses of the Public Health Act Amendment Act, 1907, and of revised Regulations under the Dairies, Cowsheds, and Milkshops Orders.

The following Table shows the rate of infant mortality which has prevailed in the large towns in past years :—

TABLE XXXVI.

Towns.	Deaths under one year to 1,000 births registered.									
	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907
London ...	167	167	160	149	141	131	144	131	132	116
West Ham ...	170	197	189	171	149	146	165	156	149	131
Croydon ...	150	154	132	141	132	108	129	96	125	94
Brighton ...	181	173	166	161	125	114	133	100	111	113
Portsmouth ...	156	197	155	163	152	114	145	133	130	123
Plymouth ...	170	190	175	149	155	144	173	136	154	110
Bristol ...	164	158	133	131	131	116	133	122	128	100
Swansea ...	184	166	175	174	135	165	172	131	156	132
Wolverhampton ...	200	184	206	163	134	141	152	136	140	130
Birmingham ...	191	191	199	187	157	159	195	155	168	147
Norwich ...	192	179	178	183	167	150	180	174	176	125
Leicester ...	191	195	175	175	153	160	163	146	166	131
Nottingham ...	178	210	196	193	159	165	175	155	171	165
Derby ...	169	162	174	154	125	128	143	151	114	121
Birkenhead ...	186	186	160	181	148	156	180	127	151	110
Liverpool ...	184	198	186	188	163	159	196	154	171	144
Bolton ...	168	181	171	172	134	152	167	166	138	146
Manchester ...	197	206	189	199	152	169	187	157	166	146
Salford ...	212	209	207	204	157	167	193	150	162	140
Oldham ...	175	198	172	173	148	160	155	150	146	144
Burnley ...	195	269	205	226	177	217	232	173	213	158
Blackburn ...	206	189	220	193	159	157	191	146	156	153
Preston ...	225	255	236	216	189	161	183	150	200	158
Huddersfield ...	153	152	132	132	138	120	136	119	135	97
Halifax ...	163	159	132	127	144	122	130	130	118	103
Bradford ...	185	181	141	168	139	148	166	144	152	124
Leeds ...	182	171	183	188	159	153	176	152	152	130
Sheffield ...	195	194	200	201	150	182	159	167	158	145
Hull ...	182	175	183	175	137	162	181	153	161	127
Sunderland ...	202	175	169	182	147	157	165	143	140	130
Gateshead ...	208	177	169	197	136	159	174	138	163	136
Newcastle-on-Tyne ...	190	193	170	178	139	165	156	135	151	123
CARDIFF ...	158	164	141	148	145	122	144	118	134	131

INFECTIOUS DISEASES.—The 2,819 deaths from all causes included 358 from the principal infectious diseases. These were distributed during each quarter of the year 1907 as follows:—

			First Quarter.		Second Quarter.		Third Quarter.		Fourth Quarter.
Small-pox	...	...	1	...	1	...	—	...	—
Measles	...	...	1	...	4	...	124	...	47
Whooping Cough	...	...	19	...	12	...	19	...	6
Diphtheria	...	...	9	...	6	...	2	...	6
Scarlet Fever	...	...	9	...	2	...	6	...	4
Enteric Fever	...	...	4	...	5	...	1	...	3
Diarrhoea	...	...	6	...	1	...	25	...	35
Totals	...	...	49	...	31	...	177	...	101

The 358 deaths from these diseases were equivalent to an annual death-rate of 1·91 per 1,000 persons living, as compared with 1·34, the rate in 1906, and with 1·98, the average rate in the ten years 1897–1906.

The death-rate from the chief infectious diseases in England and Wales in 1907 was as follows:—

	Death rate per 1,000
England and Wales	1·26
76 Great Towns	1·54
142 Smaller Towns	1·29
England and Wales, less the 218 towns	0·91
CARDIFF	1·91

In Cardiff the death-rate from this group of diseases in the several Registration Sub-Districts was as follows:—

	Death-rate per 1,000.
East Cardiff	1·86
Central „	1·77
West „	1·47

The following Table shows the death-rate per 1,000 of the population in each year from Zymotic Diseases during the years 1878–1907:—

TABLE XXXVII.

Year.	Small-Pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Typhoid Fever.	Diarrhoea.
1878	0·01	0·03	0·12	0·89	0·15	0·22	0·92
1879	0·00	0·12	0·53	0·24	0·11	0·23	0·40
1880	0·01	0·80	0·34	0·92	0·11	0·16	1·18
1881	0·02	0·01	0·23	0·67	0·13	0·20	0·58
1882	0·01	0·36	0·75	0·42	0·30	0·16	1·24
1883	0·01	0·12	0·04	0·74	0·24	0·38	0·81
1884	0·08	0·88	1·36	0·33	0·37	0·36	1·66
1885	0·02	2·04	0·26	1·21	0·40	0·21	1·00
1886	0·00	0·16	0·16	0·45	0·13	0·62	1·62
1887	0·10	0·59	0·10	0·44	0·19	0·15	1·05
1888	0·03	0·99	0·29	0·47	0·07	0·31	0·75
1889	0·00	0·36	0·13	0·70	0·07	0·25	0·66
1890	0·00	0·55	0·16	0·32	0·12	0·19	1·04
1891	0·00	0·42	0·26	0·68	0·12	0·19	0·39
1892	0·00	0·42	0·63	0·33	0·26	0·17	0·85

Year.	Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Typhoid Fever.	Diarrhoea
1893	0-00	0-68	0-28	0-28	0-68	0-13	0-92
1894	0-00	0-07	0-05	0-82	0-42	0-05	0-30
1895	0-00	0-28	0-05	0-34	0-32	0-09	1-01
1896	0-01	0-23	0-19	0-66	0-37	0-08	0-73
1897	0-00	0-44	0-11	0-21	0-59	0-13	0-79
1898	0-00	0-28	0-05	0-24	0-83	0-11	0-83
1899	0-00	0-06	0-01	0-64	0-38	0-12	0-90
1900	0-01	0-80	0-06	0-25	0-50	0-15	0-41
1901	0-00	0-01	0-17	0-52	0-47	0-06	0-45
1902	0-00	1-08	0-21	0-56	0-52	0-05	0-32
1903	0-01	0-15	0-18	0-15	0-20	0-08	0-47
1904	0-00	0-36	0-14	0-34	0-17	0-05	0-73
1905	0-00	0-44	0-02	0-21	0-12	0-04	0-27
1906	0-00	0-01	0-01	0-35	0-07	0-07	0-82
1907	0-01	0-94	0-11	0-30	0-12	0-07	0-35

The following Table shows the number of cases of infectious disease notified in the Cardiff Urban Sanitary District since the adoption of the Infectious Disease (Notification) Act, 1889 :—

TABLE XXXVIII.

Year.	Small-Pox.	Diphtheria (including Membranous Group)	Scarlet Fever.	Enteric Fever.	Typhus Fever.	Erysipelas.	Puerperal Fever.	Continued Fever.	Totals.
1890	—	72	335	150	—	45	4	2	608
1891	9	70	685	130	—	52	10	—	956
1892	5	164	1,851	118	—	95	12	3	2,248
1893	4	479	816	103	41	152	24	2	1,621
1894	10	343	577	62	1	135	19	3	1,150
1895	1	248	484	79	—	132	17	5	966
1896	45	306	874	74	1	134	21	7	1,462
1897	7	516	758	117	—	163	12	7	1,580
1898	—	960	332	80	—	133	18	6	1,529
1899	—	640	184	94	—	176	13	8	1,115
1900	4	714	383	95	4	106	15	5	1,326
1901	8	734	1,362	73	—	152	16	3	2,348
1902	2	701	1,433	69	—	169	13	7	2,394
1903	65	438	963	100	6	145	20	5	1,742
1904	11	406	658	40	—	112	12	2	1,241
1905	24	327	362	39	—	133	14	3	902
1906	2	333	776	77	—	117	17	1	1,323
1907	16	304	950	62	—	147	16	—	1,495

From the foregoing Tables it will be seen that measles and whooping cough were the most fatal of the infectious diseases during the year; the deaths from measles being in the proportion of 49 per cent. of the total deaths from these diseases. The fatality from diarrhoea was unusually low.

MEASLES.—176 deaths were registered from measles during the year, corresponding to an annual death-rate of 0·94 per 1,000 persons living, as compared with 0·39, the average death-rate in the ten years 1897–1906. Of the 176 deaths from this disease 163, or 92 per cent., were amongst children under 5 years of age. A special report was presented to the sanitary authority in November upon the prevalence of this disease in the district, from which the following is an extract :—

In consequence of the continued spread of measles, particularly in the neighbourhood of the Gladstone, Roath Park, and Crwys Road Schools, by which the average attendance in the classes of the infant departments of these schools was considerably diminished, I advised the closure of these

departments. Acting upon this advice, two members of the Sanitary Authority signed a requisition to the Education Authority for the closure of the infants departments of these schools from the 5th to the 24th of November, 1907. Disinfection of these class rooms has been effected during the period of closure.

It was found on inquiry, that the absentees on account of measles amounted to about 15 per cent. of the average attendance in the infants departments of each of these schools. The mortality from measles first assumed a high figure in the returns of the District Registrars, in the week ending 20th July. The mortality in each week from the 6th July until the 16th November, is given in the Chart appended to this Report, and the distribution of this mortality in Municipal Wards and in age periods is given in the Table. From this it will be seen that the great majority of fatal cases occurred amongst children under 5 years of age; 93 per cent. of the total deaths at all ages were amongst children under that age. During the period under consideration the largest number of deaths occurred in the Splott and Grangetown Wards, and during the third quarter of the year the distribution of deaths in Registration Sub-districts was as follows:—

Central Cardiff	...	...	...	...	...	...	30
West	..	...	...	...	...	...	35
East	..	...	...	...	...	...	48

The disease was therefore distributed throughout the entire inhabited part of the City.

In the absence of any notification of measles it is impossible to ascertain the number of cases of this disease with any degree of exactitude. The fatality from this disease varies greatly in different epidemics. Usually it is comparatively low in the summer months, and the deaths are for the most part due to complications, such as pneumonia, bronchitis, and other diseases of the air passages, and also to diarrhoea.

During the third quarter of the year, 124 deaths from measles were registered, equal to an annual death-rate of 2·6 per 1,000 persons living. Assuming the case mortality, or proportion of deaths to cases, to average 3 per cent., a somewhat high rate, over 4,000 cases of measles must have occurred during that period.

From the Chart it will be seen that as regards deaths from measles, the maximum was reached on the week ending 24th August, after which date a sudden fall took place until the week ending 5th October, followed by another rise and fall. Owing to the long incubation of measles, and to the facts that fatal results usually occur as late as the second week of the illness, and that some delay occurs in the receipt of the Registrars' returns of deaths, the effect of the summer vacation in the Elementary Schools, which extended from the 2nd August to the 2nd September, was not felt until some weeks after the former date. Although delayed, this effect was very marked. The delay in the subsequent rise to some weeks after the commencement of the school term on the latter date is capable of the same explanation. As the epidemic had not assumed very extensive proportions until a short time before the vacation, I did not consider that it was advisable to recommend the closure of any of the elementary schools, but caused the infants departments of those schools most affected to be disinfected and cleansed during the holiday. As the mortality had again increased towards the end of October, and I found on inquiry that the attendance at the Gladstone, Roath Park, and Crwys Road Council Schools had diminished in consequence of the prevalence of measles amongst the scholars of the infants departments of those schools, I advised the closure of these departments until the 24th November. The class-rooms in these schools have been disinfected during this interval.

Printed instructions, a copy of which is enclosed, were, as far as possible, given to the occupiers and inmates of houses in which cases of measles were known to exist. These instructions differ in some respect from those formerly in use, in that children living in infected houses, if they have had measles, are allowed to attend the Boys and Girls Departments of Elementary Schools, but no children from infected houses are allowed to attend the Infants Departments. By this arrangement there is less interference with the school attendance in the district, and the effect upon the spread of measles is certainly not less than under the previous arrangement, by which all children were prevented from attending school if a case or cases of measles existed in the house in which they lived.

The enclosed Table shows the percentage of average attendance in the Public Elementary Schools during the month of May, before the epidemic commenced, and during the month of October, when the attendance of some of the schools was somewhat seriously affected, chiefly owing to the prevalence of measles. Lists of absentees were from time to time supplied to me by the Head Teachers and School Attendance Officers, and printed instructions were left at the infected houses. In many cases verbal information and instruction were given to the parents and those in charge of the sick children.

MEASLES.

Year.	Deaths under 5 years.	Deaths over 5 years.	Total.
1888	101	7	108
1889	37	4	41
1890	63	2	65
1891	52	3	55
1892	53	5	58
1893	89	8	97
1894	8	3	11
1895	44	1	45
1896	36	3	39
1897	70	5	75
1898	46	4	50
1899	12	0	12
1900	152	10	162
1901	6	0	6
1902	172	12	184
1903	26	1	27
1904	61	3	64
1905	76	4	80
1906	2	0	2
1888—1906 ...	1,106	75	1,181

DEATHS FROM MEASLES IN CARDIFF DURING 1907 :—

1st Quarter.		2nd Quarter.		3rd Quarter.	
Under 5 years.	Over 5 years.	Under 5 years.	Over 5 years.	Under 5 years.	Over 5 years.
—	1	3	1	115	9

Table showing deaths at various ages and the local distribution of fatal cases of measles during the twenty weeks ended 16th November, 1907

Wards.	All Ages.	Under One year.	1 to 5 years.	5 to 15 years.	15 to 25 years.
Central	11	4	5	2	—
South	17	5	11	1	—
Cathays	15	4	10	1	—
Adamsdown	11	1	10	—	—
Riverside	3	1	2	—	—
Canton	10	1	9	—	—
Grangetown	26	6	19	1	—
Roath	16	1	12	3	—
Park	13	2	9	2	—
Splott	28	4	23	—	1
Union Workhouse... ..	12	3	9	—	—
Totals	162	32	119	10	1

City of Cardiff.

Chart.

SHOWING NUMBER OF DEATHS FROM MEASLES DURING THE
TWENTY WEEKS ENDED 16TH NOVEMBER, 1907.

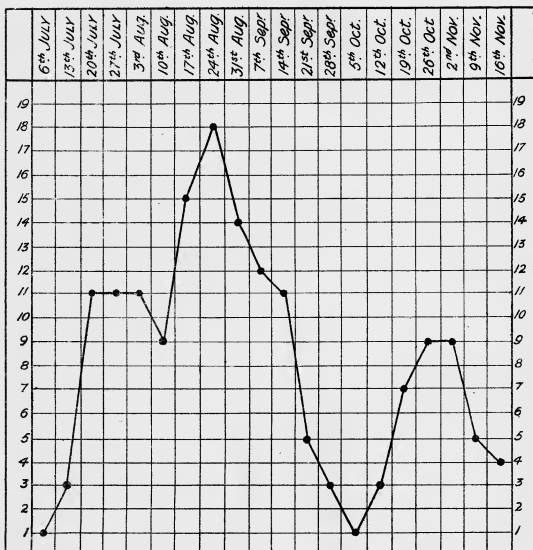


Table showing the percentage of average attendance in the infants' departments of public elementary schools during the months of May and October, 1907:—

NAME OF SCHOOL.	Percentage of Average Attendance.		NAME OF SCHOOL.	Percentage of Average Attendance.	
	May	October		May	October
Crwys Road Council School	90.2	78.7	Canton National School	90.8	82.0
St. Andrew's National	92.8	92.4	St. Mary's R.C.	83.0	85.2
St. Monica's	88.4	76.0	Wood Street Council,	93.9	90.0
Gladstone Council	89.5	72.4	St. David's R.C.	89.7	79.7
Allensbank	92.3	90.0	Virgil Street Council	86.4	85.6
Roath Park	89.7	67.1	Court Road	87.0	90.0
Albany Road	85.0	82.5	Spotlands	95.3	91.0
Stacey	87.7	71.1	Metal Street National	91.3	84.8
Marlborough Rd. Council,	89.1	87.0	Eleanor Street Council School	93.4	81.4
Tredegaville National	90.4	85.2	South Church St.	84.6	67.9
Crofts Street	91.8	83.1	*Bute Town National	90.4	92.1
St. Peter's R.C.	91.2	91.1	St. Mary's Mission Nat.	93.6	59.0
Adamsdown Council	88.0	85.0	†St. Paul's R.C.	85.0	—
St. Mary's National	91.5	91.6	St. Cuthbert's R.C.	88.0	86.0
St. John's	89.0	89.0	Grangetown Council	88.9	89.6
Lansdowne Rd. Council	93.7	91.9	Grangetown National	92.0	89.2
Radnor Road	92.3	90.7	St. Patrick's R.C.	86.5	73.9
Severn	85.8	89.8	Moorland Road Council	94.7	91.2
			St. Alban's R.C.	83.0	85.0

*Bute Town National School closed and scholars removed to St. Mary's, Clarence Road.

†St. Paul's R.C. School closed and scholars removed to St. David's R.C. School.

INSTRUCTIONS FOR DEALING WITH CASES OF MEASLES.

In every case of measles or suspected measles, a medical man should be sent for.

Measles is exceedingly fatal amongst young children; all such cases, therefore, require early medical treatment and careful nursing.

Children suffering from the disease should be kept in a well-ventilated and warm room—(temperature 65° F.)

The patient should be separated from all other children for at least three weeks after the appearance of the rash.

The early symptoms of measles are sneezing, coughing, and watery secretions from eyes and nose.

When the early symptoms appear, the patient should be separated from other children when if the disease prove to be measles, the rash will have appeared.

When the patient has recovered, disinfect the sick room by washing the floor, walls, and furniture (as far as possible) with soap and hot water. Infected articles of clothing and bedding should be boiled for an hour; and, under medical advice, any such articles may be sent to the City Disinfecting Station on application being made to the Medical Officer of Health.

Children who have already had measles may be allowed to attend the Boys' and Girls' Departments of Schools, but no children living in houses in which there are cases of measles may attend the Infant Department.

EDWARD WALFORD, M.D.,

MEDICAL OFFICER OF HEALTH.

City Hall, Cardiff.

SCARLET FEVER.—Twenty-one deaths from scarlet fever were registered during the year, being equal to an annual death-rate of 0·11 per 1,000 persons living, as compared with 0·01, the rate in 1906, and with 0·09, the average death-rate during the ten years 1897–1906.

The mortality from scarlet fever throughout the country was as follows:—

	Death rate per 1,000.				
England and Wales	0·09
76 Great Towns	0·12
142 Smaller Towns	0·08
CARDIFF	0·11

The number of cases of scarlet fever notified during the year amounted to 950, distributed as follows:—

	First Quarter	Second Quarter.	Third Quarter.	Fourth Quarter.
East Cardiff	63	116	86	99
Central „	97	65	45	49
West „	121	91	61	57
Totals	281	272	192	205

Of the 950 cases of scarlet fever notified, 683, or 71·8 per cent., were removed to the City Isolation Hospital.

The fatality, or proportion of deaths from scarlet fever to cases of the disease notified, amounted to 2·2 per cent. The disease was generally of a mild type.

TABLE XXXIX.

SCARLET FEVER.

Year	Population.	No. of Cases Notified.	Attack rate per 1,000	No. of Deaths.	Death rate per 1,000	Percentage Removed to Hospital.	Mortality per cent. of Cases Notified.
1890	117,012	335	2·86	19	0·16	—	5·6
1891	130,283	685	5·25	35	0·27	—	5·0
1892	132,895	1,851	13·17	87	0·65	13	4·7
1893	136,168	816	6·00	39	0·28	22	4·7
1894	139,519	577	4·13	8	0·05	31	1·3
1895	142,958	484	3·38	8	0·05	43	1·6
1896	146,479	874	5·96	28	0·19	48	3·2
1897	150,087	758	5·05	17	0·11	50	2·2
1898	153,783	332	2·15	8	0·05	56	2·4
1899	157,414	184	1·16	3	0·01	66	1·6
1900	161,452	383	2·37	11	0·06	65	2·8
1901	165,308	1,362	8·23	29	0·17	47	2·1
1902	168,909	1,433	8·42	36	0·21	48	2·1
1903	172,598	963	5·57	32	0·18	63	3·7
1904	176,313	658	3·73	25	0·14	72	3·3
1905	180,054	362	2·00	4	0·02	75	1·1
1906	183,823	776	4·22	3	0·01	74	0·4
1907	187,620	950	5·06	21	0·11	72	2·2

The following is an extract from a Special Report of the Medical Officer of Health upon an outbreak of scarlet fever and sore throat apparently due to milk infection :—

Towards the end of May, 1907, my attention was called to an unusually large number of notifications of scarlet fever amongst persons living within a somewhat circumscribed area. 37 cases of scarlet fever and 3 of diphtheria were notified in the adjacent districts of the Roath and Park Wards within the City of Cardiff, from the 14th to the 31st May inclusive.

Of those attacked, 20 were regular customers of, and were at the time supplied with milk by, a certain milk dealer, W.E., who occupied premises just outside the City boundaries in the County of Monmouth. This dealer had a milk-shop and dairy well kept, clean, and with simple, but fairly efficient, means for cooling the milk. He kept no cows, but obtained the greater part of his milk supply from a farmer, E. J., living in the same rural district, who supplied no other dealers or persons but W.E.

On the 23rd of May, I received a notification of a case of scarlet fever amongst the scholars of a girls boarding school in Cardiff. On inquiry I found that the scholar who was suffering from this disease was the daughter of the farmer, E.J., and that she had left her home for school on the morning of the 23rd May. She was removed to the Cardiff Isolation Hospital the same afternoon, having upon her at the time a well marked scarlet fever rash in its early stage. The disease was obviously contracted at her home, as she had not been at school or away from home for some weeks previous to this date.

On making the usual inquiries into the etiology of the cases of scarlet fever notified during this short period, the possibility of milk infection became apparent. After some preliminary communication with the Medical Officer of Health of the rural district in question. I visited the premises occupied by W. E., the milk dealer, and those occupied by E. J., the farmer, and found on inquiry that the latter possessed about 20 cows, the milk from which was consigned entirely to the dealer W. E. The farmer E. J., informed me that he had recently suffered from a slight sore throat, and that his niece had in the early part of May also suffered from a similar complaint, and that she had been in bed for two days; no rash was noticed in either case, and no doctor was called in. At the time of my visit there was no evidence of scarlet fever in these cases, and a bacteriological examination gave negative results as regards diphtheria bacilli. The cows were inspected by a veterinary surgeon, who stated that they were all in good health. Both the farmer and his niece took an active part in milking and attending to the cows. I was subsequently informed that several cases of scarlet fever had recently occurred amongst children living in the village in which the milk purveyors lived, and that these cases were imperfectly isolated.

From the foregoing brief outline of events it would appear :—

- 1st.—That several cases of scarlet fever occurred amongst children in the village in question, and that these were imperfectly isolated.
- 2nd.—That a well marked case of scarlet fever occurred in the family of the farmer supplying milk to W. E.
- 3rd.—That two other doubtful cases had previously occurred amongst inmates of the farmer's house who were intimately associated with the milk business.
- 4th.—That a sharp outbreak of scarlet fever occurred amongst persons consuming the milk supplied by the farmer.

These four points naturally suggested the possibility of milk infection, and further investigations pointed still more clearly in the same direction.

The milk dealer, W. E., had an extensive milk round in Cardiff, supplying at the time of the outbreak 238 houses exclusively in the Roath and Park Wards. The total number of houses in these wards being 7,380, with an estimated population of 42,823. During the period between the 14th and the 31st May, 1907, the attack rate from scarlet fever and notified diphtheria amongst this population amounted to .93 per 1,000 persons living. The estimated population living in houses supplied with the suspected milk was 1,380, and the attack rate 14.4 per 1,000. The estimated population in the same wards living in houses not supplied with the suspected milk was 41,423, and the attack rate .48 per 1,000 during the period in question. Out of the 238 houses supplied with the suspected milk, 18 were infected, or 7.5 per cent., as compared with 0.2 per cent. amongst the houses in these wards supplied with milk from other sources.

I have so far dealt with the incidence of scarlet fever in this particular locality (Roath and Park Wards). It may be interesting to give the attack rate from scarlet fever in the rest of the town during the month of May, as compared with the higher rate in the above-named wards. In this

outbreak school influence may be excluded. Of those attacked, four were below school age, two were above that age, and of the remainder, two only attended the same school, and at the time of the outbreak there was no particular incidence of the disease in any of the Public Elementary Schools. The evidence in favour of milk infection is strengthened by the fact that the outbreak ceased immediately after stopping the supply from the farm. A complete list of the customers of the milk dealer, W. E., was obtained and compared with the scarlet fever notifications. During a period of three weeks, when the milk was allowed to re-enter Cardiff, not a single case occurred amongst these people until long after the period in question.

I may mention that this outbreak was dealt with without strictly complying with formalities required under Section 4 of the Infectious Disease (Prevention) Act. It was necessary, and it is always necessary, to act promptly in these cases of milk outbreaks and the delay consequent upon strict legal procedure is in such cases most inconvenient. These proceedings were explained to the milk dealers, who readily agreed to take any steps which I considered necessary, acting in conjunction with the Medical Officer of Health of the rural district in which the farm was situated.

As already mentioned, the date of the onset amongst the customers of W. E. was the 14th May. The date of the removal of the farmer's daughter to the Isolation Hospital was the 23rd May, which was probably the second day of the disease. The milk supply was stopped on the 31st May, and no further cases occurred after that date. It is probable, therefore, that the milk became infected some few days before the first-named date, i.e., 14th May, by one of the inmates of the farmer's dwelling. The niece seems the most likely person, although the evidence in her case was not clear. The daughter was either infected directly from the niece, or indirectly from the milk infected by the niece.

I mentioned that the formalities required under Section 4 of the Infectious Disease (Prevention) Act were not strictly complied with. As a matter of fact, the only part of the Section which was complied with was that which relates to the authorization to inspect the dairy by an order of a Justice having jurisdiction in the place where the dairy is situate. This was obtained, but was quite unnecessary, although, of course, if any objection had been raised to such inspection this Order would have been required. The whole matter was reported to the Sanitary Authority after all the necessary steps had been taken, and they passed a resolution approving and confirming the action taken. The delay which would have been caused by the Local Authority giving notice to the dairymen to appear before them, the subsequent order by the Local Authority not to supply milk, and the other formalities of the Act would have seriously interfered with any prompt action in this case. Fortunately the good sense and good feeling of the milk dealers concerned rendered these formalities quite unnecessary.

In conclusion I would submit that in this outbreak, insignificant though it may be in point of numbers, the proof of the implication of the milk from the particular farm in question is fairly conclusive, and that the evidence is strongly in favour of a milk infection from a cow or cases of human scarlet fever, and that there is no evidence that any of the cows supplying the milk were suffering from any pathological condition likely to produce scarlet fever or sore throat.

Scarlet fever and sore throat in the Roath and Park Wards, 14th to 31st May, 1907, inclusive :

Milk supply.	Houses.	Infected Houses.	Percentage.
Farm of E.J.	238	18	7.5
Other vendors	7,142	15	0.2
Totals	7,380	33	0.4

Milk supply.	Population.	Cases.	Attack rate per 1,000.
Farm of E. J.	1,380	20	14.4
Other vendors	41,423	20	0.48
Totals	42,803	40	0.93

SCARLET FEVER.

Attack-rate per 1,000 persons living during the four weeks ended 1st June, 1907, in Municipal Wards :—

Central	0.36	Canton	0.16
South	0.77	Grangetown	0.85
Cathays	0.49	Roath	1.22
Adamsdown	0.69	Park	0.98
Riverside	0.17	Splott	0.41

DIPHTHERIA AND MEMBRANOUS CROUP.—The number of deaths registered from these diseases amounted to 23, and were equivalent to an annual death-rate of 0·12 per 1,000, as compared with 0·07, the rate in 1906, and with 0·38, the average rate in the ten years 1897–1906.

The mortality from diphtheria throughout the country in 1907 was as follows:—

	Death rate per 1,000.			
England and Wales	0·16
76 Great Towns	0·17
142 Smaller Towns	0·15
CARDIFF	0·12

The number of cases of diphtheria notified in Cardiff during 1907 amounted to 304, as compared with 333 in 1906. The fatality, or proportion of deaths to cases notified, during the year was 7·6 per cent., and the number of cases removed to the City Isolation Hospital was 179, or 59 per cent.

The number of notifications and deaths in each quarter of the year in the several Registration Sub-districts was as follows:—

	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.	
	Notifications.	Deaths.	Notifications.	Deaths.	Notifications.	Deaths.	Notifications.	Deaths.
East Cardiff	... 29	... 2	... 13	... 1	... 14	... 1	... 29	...
Central „	... 18	... 1	... 10	...	... 19	...	... 26	... 1
West „	... 44	... 6	... 30	... 5	... 33	... 1	... 39	... 5
Totals	... 91	... 9	... 53	... 6	... 66	... 2	... 94	... 6

TABLE XL.

DIPHTHERIA AND MEMBRANOUS CROUP.

Year.	Population.	No. of Cases Notified.	Attack rate per 1,000.	No. of Deaths.	Death rate per 1,000.	Percentage Removed to Hospital.	Mortality per cent. of Cases Notified.
1890	117,012	72	0·61	15	0·12	—	20·8
1891	130,283	70	0·53	16	0·12	—	22·8
1892	132,895	164	1·23	36	0·27	—	21·9
1893	136,168	479	3·51	93	0·68	—	19·4
1894	139,519	343	2·45	59	0·42	—	17·2
1895	142,958	248	1·73	46	0·32	3	18·5
1896	146,479	306	2·08	55	0·37	3	17·9
1897	150,087	516	3·43	90	0·59	15	17·4
1898	153,783	960	6·24	129	0·83	21	13·4
1899	157,414	640	4·06	61	0·38	46	9·5
1900	161,452	714	4·42	81	0·50	53	11·3
1901	165,308	734	4·44	78	0·47	47	10·6
1902	168,909	701	4·15	88	0·52	46	12·5
1903	172,598	438	2·53	36	0·20	51	8·2
1904	176,313	406	2·30	31	0·17	47	7·6
1905	180,054	327	1·81	23	0·12	56	7·0
1906	183,823	333	1·81	13	0·07	56	3·9
1907	187,620	304	1·62	23	0·12	59	7·6

The fatality from diphtheria falls chiefly upon young children. The number of notifications and the rate of fatality at various age periods in Cardiff during the year is given below:—

Age period	Cases Notified	Deaths	Proportion of Deaths to Cases Notified
Under 1 year	1	—	—
1 to 5 years	83	12	14·4 per cent.
5 to 15 „	140	7	5·0 „
15 to 25 „	44	1	2·3 „
25 to 65 „	36	3	8·3 „

ENTERIC FEVER.—Thirteen deaths were registered from enteric fever during the year, equivalent to an annual death-rate of 0·07 per 1,000 persons living, and corresponding exactly with the rate in 1906. The average death-rate from enteric fever in the the 10 years 1897–1906 was 0·08 per 1,000.

The mortality throughout the country was as follows:—

	Death-rate per 1,000.					
England and Wales	0·07
76 Great Towns	0·07
142 Smaller Towns	0·07
CARDIFF	0·07

The number of cases of enteric fever notified in Cardiff during 1907 was 62; of these 35, or 56 per cent., were removed to the City Isolation Hospital. Nineteen of the cases notified had their origin outside the district.

An examination was made of the sanitary condition and surroundings of the dwellings occupied by the persons attacked with enteric fever, and in 14 instances defective drainage and insanitary conditions of some kind were found; these were remedied without delay.

Amongst those who suffered from the disease six were associated with previous cases in the same house.

The number of cases of enteric fever notified since the Infectious Diseases (Notification) Act came into force is shown in the following Table, which shows also the attack rate, or proportion of cases notified per 1,000 persons living, the death-rate per 1,000, and the percentage of deaths to cases notified:

TABLE XLI.

ENTERIC FEVER.

Year.	Population.	No. of Cases Notified.	Attack rate per 1,000.	No. of Deaths.	Death rate per 1,000.	Percentage removed to Hospital.	Mortality per cent. of cases Notified.
1890	117,012	150	1·28	23	0·19	—	15·3
1891	130,283	130	0·99	26	0·19	—	20·0
1892	132,895	118	0·88	24	0·18	3	20·3
1893	136,168	103	0·75	18	0·13	12	17·4
1894	139,519	62	0·44	7	0·05	1	11·2
1895	142,958	79	0·55	14	0·09	13	17·7
1896	146,479	74	0·50	13	0·08	28	17·0
1897	150,087	117	0·77	20	0·13	34	17·0
1898	153,783	80	0·52	17	0·11	23	21·2
1899	157,414	94	0·59	19	0·12	52	20·2
1900	161,452	95	0·58	25	0·15	47	26·3
1901	165,308	73	0·44	11	0·06	57	15·0
1902	168,909	69	0·40	9	0·05	68	13·0
1903	172,598	100	0·57	14	0·08	76	14·0
1904	176,313	40	0·22	9	0·05	57	22·5
1905	180,054	39	0·21	8	0·04	58	20·5
1906	183,823	77	0·41	13	0·07	69	16·9
1907	187,620	62	0·33	13	0·07	56	21·0

SMALL-POX.—Two deaths from small-pox were registered during the year, being equivalent to an annual death-rate of 0·01 per 1,000.

Sixteen cases of the disease were notified; fifteen of these occurred during the first quarter, and one during the second quarter of the year.

In connection with these cases a large number of persons who had been in contact with the infection were re-vaccinated, and no further spread of the disease occurred.

I am indebted to Mr. Matthews, the Vaccination Officer, for the following return of vaccinations within the City during the year:—

Successfully Vaccinated.	Insusceptible.	Certificates of Exemption.	Died Unvaccinated.	Postponement by Medical Certificate.	Unaccounted for.
2,804	13	89	418	87	1,843

DIARRHOEA.—The deaths from diarrhoea, including those from epidemic enteritis, numbered 67, being equivalent to an annual death-rate of 0·35 per 1,000 persons living, as compared with 0·27, the rate in 1906, and with 0·65 per 1,000, the average death-rate in the 10 years 1897–1906.

The mortality from diarrhoea throughout the country in the year 1907 was as follows:—

						Death-rate.
England and Wales	...	...	...	...	...	0·29 per 1,000.
76 Great Towns	...	...	...	...	...	0·40 „
142 Smaller Towns	...	...	...	...	...	0·29 „
CARDIFF	...	...	...	...	...	0·35 „

The distribution of fatal diarrhoea in Cardiff, according to the season of the year, and the various age periods, was as follows:—

TABLE XLII

1907.			Under 1 year.	1-5 years.	5-15 years.	15-25 years.	25-65 years.	65 years and upwards.	TOTALS.
First Quarter...	...	...	3	1	—	—	—	2	6
Second „	...	...	—	1	—	—	—	—	1
Third „	...	...	20	3	—	—	—	2	25
Fourth „	...	...	30	3	1	—	1	—	35
Totals	...	...	53	8	1	—	1	4	67

The following Table shows the deaths in three age periods and the local distribution of fatal cases of infantile diarrhoea during the year 1907 :—

TABLE XLIII.

WARDS.					Under 3 months.	3-6 months.	6-12 months.	TOTALS
Central	...	...	...	...	1	—	1	2
South	...	...	...	...	1	—	1	2
Cathays	...	...	...	...	1	2	2	5
Adamsdown	...	...	...	...	4	1	2	7
Riverside	...	...	...	...	1	2	3	6
Canton	...	...	...	...	1	—	2	3
Grangetown	...	...	...	...	3	4	3	10
Roath	...	...	...	...	1	1	3	5
Park	...	...	...	...	—	—	1	1
Splott	...	...	...	...	1	4	7	12
Totals	...	...	...	...	14	14	25	53

The relation between the temperature of the air, rainfall, and the diarrhoea mortality during the third quarters of the years 1892—1907 is shown in the following Table :—

TABLE XLIV.

Year	Death-rate per 1,000	Mean Temperature.	Rainfall in inches.
1892	2.3	60°·4	12.4
1893	2.5	61°·0	8.9
1894	0.5	57°·0	10.9
1895	2.5	59°·5	9.9
1896	2.4	58°·9	11.3
1897	2.6	59°·3	14.3
1898	2.6	60°·3	5.8
1899	3.2	63°·3	5.3
1900	1.2	59°·7	6.0
1901	1.4	60°·2	11.1
1902	0.8	58°·0	3.7
1903	1.2	58°·3	14.7
1904	2.3	58°·8	10.7
1905	0.8	58°·6	5.3
1906	2.3	59°·5	4.5
1907	0.5	58°·0	7.2

The following Table gives the number of deaths and death-rates at all ages from diarrhoea during each of the months July–October, 1907, and shows the influence of meteorological conditions upon this mortality, bearing in mind that the deaths in many cases were not registered until some time after the event :—

TABLE XLV.

Week ending		Mean Temperature (°F.)	Rainfall (ins.)	Deaths from Diarrhoea.	Death-rate per 1,000.
July	6th	53°·0	2·11	1	0·3
"	13th	52°·8	0·20	—	—
"	20th	65°·1	—	—	—
"	27th	61°·5	0·48	1	0·3
August	3rd	58°·0	1·09	1	0·3
"	10th	59°·9	0·61	1	0·3
"	17th	59°·4	1·50	3	0·8
"	24th	56°·0	0·18	1	0·3
"	31st	58°·4	0·14	1	0·3
September	7th	55°·6	0·98	1	0·3
"	14th	59°·7	—	3	0·8
"	21st	56°·2	—	3	0·8
"	28th	58°·5	—	8	2·2
October	5th	54°·4	0·74	6	1·7
"	12th	51°·9	2·18	13	3·6
"	19th	50°·0	1·32	4	1·1
"	26th	47°·7	1·73	3	0·8

TUBERCULOSIS.—The deaths from all forms of tuberculosis during the year 1907 amounted to 311, including 220 from pulmonary consumption or phthisis. The mortality from phthisis was equal to an annual death-rate of 1·17 per 1,000, as compared with 1·27, the average rate in the ten years 1897–1906.

The mortality from phthisis in Cardiff since the year 1880 is shown in the following Table:—

TABLE XLVI.

Year	Death-rate per 1,000.	Year.	Death-rate per 1,000.
1880	3·21	1894	1·62
1881	2·96	1895	1·67
1882	2·86	1896	1·38
1883	2·67	1897	1·99
1884	2·97	1898	1·32
1885	3·58	1899	1·32
1886	2·78	1900	1·25
1887	2·72	1901	1·05
1888	2·80	1902	1·29
1889	2·79	1903	1·19
1890	3·18	1904	1·36
1891	2·78	1905	1·28
1892	1·82	1906	1·20
1893	1·68	1907	1·17

The number of notifications of phthisis received each year since 1902 is shown in the following Table :—

TABLE. XLVII.

Year.	Total Number Received.	Number from Union Workhouse.
1902	109	27
1903	163	43
1904	205	54
1905	167	50
1906	141	43
1907	133	39

The measures introduced in the year 1901, with the object of preventing the spread of consumption have been continued. A voluntary system of notification of cases of phthisis was first adopted in that year. The amount of success which has attended this voluntary action may be to some extent estimated by a reference to the foregoing Table. On the whole the information thus obtained, although by no means complete, has been of service; the cases notified being those in which the medical practitioner considers that the assistance of the Health Department is necessary and advisable.

Each case notified is visited by an Inspector or Health Visitor, when the consumptives, or those in charge of them, are instructed personally, and by means of pamphlets, in the precautions necessary for preventing the spread of infection, and when possible the sputum of the patient is examined bacteriologically at the Public Health Laboratory at the request, or with the consent, of the medical practitioner in attendance.

In the event of a death from phthisis being returned by the Registrar, a letter and stamped addressed post card is sent to the occupier of the house in which the death occurred, offering disinfection of the premises, and of the infected articles in the house. Altogether applications for disinfection were received in 173 cases. These disinfections were carried out by the Sanitary Authority free of charge.

In a certain number of cases it was possible to ascertain the occupation of the persons suffering from phthisis. This information is contained in the following Table:—

TABLE XLVIII.

MALES.

Occupation.	Number.	Occupation.	Number.
Labourers	11	Pitwood Carrier	1
Seamen	6	Pilot's Assistant	1
Coaltrimmers	3	Boilermaker	1
Scholars	3	Boiler Cleaner	1
Clerks	2	Publican	1
Teachers	2	Postman	1
Carmen	2	Tinsmith	1
Shop Assistants... ..	2	Soldier... ..	1
Ironmonger	1	Telegraph Wireman	1
Watchmaker	1	Carriage Examiner	1
Errand Boy	1	Baker	1
Coal Haulier	1	Collier	1
Plasterer	1	Mail Driver	1
Commercial Traveller	1	Fireman	1
Tailor	1	Bootmaker	1
Not Stated	31		

FEMALES.

Occupation.	Number.	Occupation.	Number.
Housewives	19	Lady's Help	1
Domestic Servants	5	Scholar	1
Dressmakers	3	Milliner	1
Laundress	1	Not Stated	18

In some cases it was possible to discover the probable source of infection. This will be seen in the following Table, which gives the list of relatives of patients visited who died from phthisis:—

TABLE XLIX.

Ref. No.	Died from Phthisis.	Ref. No.	Died from Phthisis.
147.—Mother.		229.—Mother and sister.	
148.—Sister.		6.—Brother	
151.—Brothers		13.—Brother.	
153.—Sister.		14.—Father and brother.	
164.—Wife.		15.—Mother.	
165.—Sister.		16.—Father, mother, and brothers.	
173.—Sister.		25.—Father and brother.	
182.—Grandmother and uncle.		26.—Father, mother, and sister.	
191.—Mother and brother.		28.—Sister.	
197.—Children		29.—Father.	
205.—Mother.		30.—Sister.	
209.—Mother.		33.—Mother.	
221.—Mother and cousin.		34.—Brother.	
223.—Father.		42.—Father and sister.	
226.—Mother.		48.—Brother.	
227.—Mother and sister.			

CARDIFF SANATORIUM.

The following report of the Medical Superintendent shows that during the year 1907, 1,087 cases of infectious disease were under treatment, as compared with 908 in the year 1906.

	0 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 35 years.	35 to 45 years.	45 to 55 years.	55 to 65 years.	Totals.
Remaining in Hospital 31st Dec., 1906 :—								
Scarlet Fever	37	77	7	2	...	...	...	123
Enteric Fever ... ..	...	...	3	1	...	...	...	4
Diphtheria	2	18	2	...	...	...	...	22
Small-pox ... ..	...	...	2	1	...	...	...	3
Totals	39	95	14	4	...	...	...	152
Admitted during the year 1907 :—								
Scarlet Fever	224	397	51	15	3	2	...	692 ✓
Enteric Fever	1	8	23	9	1	2	...	44
Diphtheria	41	89	34	12	2	1	...	179
Small-pox	1	...	3	7	3	1	1	16
Other Diseases	2	...	2	...	...	...	...	4
Totals	269	494	113	43	9	6	1	935 ✓
Totals under treatment in 1907 ...	308	589	127	47	9	6	1	1087
Of the above there were discharged :—								
(a) Recovered								
Scarlet Fever	212	409	50	14	2	1	...	688
Enteric Fever	1	3	21	6	1	1	...	33
Diphtheria	34	98	32	7	1	1	...	173
Small-pox	1	...	5	7	3	1	...	17
Other Diseases	2	...	2	...	...	...	...	4
Totals	250	510	110	34	7	4	...	915
(b) Died								
Scarlet Fever	14	2	1	...	...	...	...	17 ✓
Enteric Fever ... ..	...	1	4	2	...	...	...	7
Diphtheria	5	3	...	...	...	...	...	8
Small-pox ... ..	...	...	...	1	...	...	1	2
Totals	19	6	5	3	...	...	1	34
Remaining in Hospital, 31st Dec., 1907 :—								
Scarlet Fever	35	63	7	3	1	1	...	110
Enteric Fever ... ..	...	4	1	2	...	1	...	8
Diphtheria	4	6	4	5	1	...	...	20
Totals	39	73	12	10	2	2	...	138
Totals under treatment in 1907 ...	308	589	127	47	9	6	1	1087

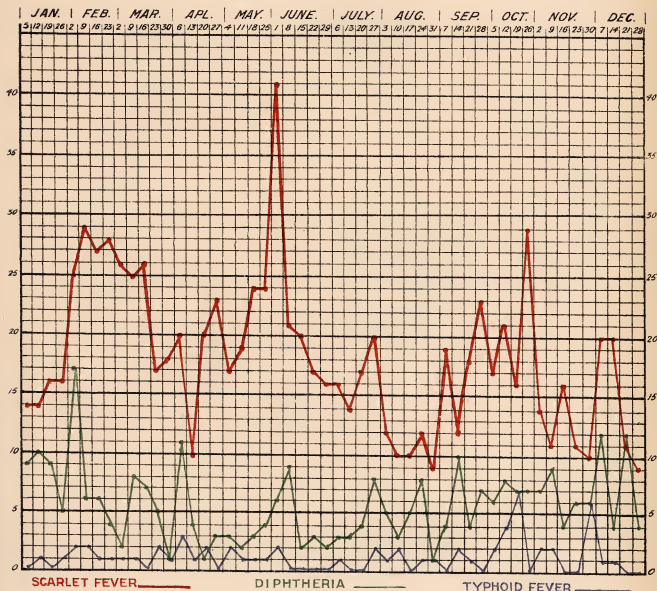
Mortality per cent. under treatment :—

Scarlet Fever	2.08	Diphtheria	3.98
Enteric Fever	14.6	Small-pox	10.5

B. W. BROAD, M.B.,
MEDICAL SUPERINTENDENT.

Chart

SHOWING THE WEEKLY NOTIFICATIONS OF SCARLET FEVER, DIPHTHERIA, AND
TYPHOID FEVER IN CARDIFF DURING THE YEAR 1907.



REPORT OF THE INSPECTOR OF CANAL BOATS TO THE MEDICAL OFFICER OF HEALTH
FOR THE YEAR ENDING 31st DECEMBER, 1907.

Sir,—

I have the honour to submit to you my report for the year 1907. Section 3 of the Canal Boats Act, 1884, provides that it shall be the duty of every Registration or Sanitary Authority, within whose district any canal or any part of a canal is situated, to enforce within such district the provisions of the principal Act, and this Act, and any regulations made thereunder by the Local Government Board, and every such authority shall, within 21 days after the 31st day of December in every year, make a report to the Local Government Board as to the execution of the principal Act, and this Act, and of the regulations made thereunder as aforesaid, and as to the steps taken by such Authority during the year to give effect to the provisions of the said Acts and regulations.

(1) The late David Vaughan, Inspector of Nuisances, acted as Inspector of Canal Boats until the date of his death on the 21st December, 1907. Salary, £15 per annum.

(2) Number of inspections during 1907	...	...	...	...	47
Condition of Boats :—					
Generally Good	...	...	...	...	35
Defective	...	...	...	...	12
Occupants of Boats	...	...	...	...	All males
Women and children sleeping in canal boats	...	...	...	...	Nil

(3) Infringements :—

(a) Registration	...	...	Nil.	(i) Painting	...	...	Nil.
(b) Notification change of master	...	Nil.		(j) Water casks	...	...	Nil.
(c) Certificates	...	...	Nil.	(k) Removal of bilge water	...	...	Nil.
(d) Marking	...	...	Nil.	(l) Notification of infectious disease	...	...	Nil.
(e) Overcrowding	...	...	Nil.	(m) Admittance of inspector	...	...	Nil.
(f) Separation of the sexes	...	Nil.		(n) Roofs leaking	...	...	2
(g) Cleanliness	...	...	Nil.	(o) Defective chimneys	...	...	2
(h) Ventilation	...	...	7	(p) Vessel leaking	...	...	1

(4) Legal proceedings taken in respect of infringements	...	...	...	Nil.
(5) Any other steps taken to secure compliance with the Acts and regulations as regards such infringements	...	...	...	Nil.
(6) Cases of infectious disease dealt with	...	...	...	Nil.
(7) Detention of boats for cleansing and disinfection	...	...	...	Nil.
(8) Number of boats on Register	...	...	...	26
(9) Number of boats registered during 1907	...	...	...	Nil.
(10) Removed from Register	...	...	...	1
Number of boats with accommodation for 2 males	...	...	...	25
Number of boats with accommodation for 3 males	...	...	...	1

With regard to the Glamorganshire Canal, the upper section, north of Abercynon, still remains closed, also the Aberdare Canal; both sections having been closed, as already reported, owing to colliery subsidence.

Between Abercynon and Cilfynydd the traffic still continues in a satisfactory state, also between Abercynon and Pontypridd, being principally goods traffic carried by the Canal Co., and the output of one small quarry.

South of Pontypridd the goods traffic has been heavier during the past year than for many years past, and the output of tinplates from Melingriffith, which is served by the Canal Co.'s steam barge and tug, has been satisfactory.

The Patent Fuel Traffic has been considerably heavier during the year than for several years past.

The Canal Co. have now in hand works for facilitating the loading and discharging of traffic outside their Sea Lock Entrance, when vessels are unable to enter the Canal during neap tides. This, no doubt, will add materially to the improvement of the traffic.

With regard to the new railway now under construction alongside the Canal, this undertaking will very probably be at work before my next report, and no doubt will be a very formidable competitor to the Canal traffic, notwithstanding the several competing lines already in the valley.

The condition of the Canal boats is very satisfactory. Very few are now owned by bye-traders, as the short lead of Canal does not require cabins. Those of the Canal Co. are in a satisfactory condition.

I am, Sir.

Your obedient servant,

T. W. WARREN.

(*Acting Inspector of Canal Boats.*)

REPORT TO THE MEDICAL OFFICER OF HEALTH OF THE CHIEF INSPECTOR OF NUISANCES FOR THE YEAR 1907.

NUISANCES :—

Nuisances inspected and notices issued	...	...	...	...	3,778
Notices complied with	...	...	...	...	3,394
Nuisances abated without legal proceedings	...	...	...	...	3,778
Animals so kept as to be a nuisance	...	...	...	...	78
Injurious and foul accumulations	...	...	...	...	270
Nuisances from smoke	...	...	...	...	13
Defective drainage	...	...	...	...	507
Drains unstopped and cleansed	...	...	...	...	355
„ trapped and repaired	...	...	...	...	83
„ tested	...	...	...	...	461
„ found defective	...	...	...	...	253
Foul and offensive w.c.'s cleansed	...	...	...	...	233
Offensive w.c.'s abolished	...	...	...	...	21
Defective apparatus to water closets repaired	...	...	...	...	136
Water laid on to water closets and urinals	...	...	...	...	14
„ „ dwelling houses	...	...	...	...	58
Dilapidated houses repaired	...	...	...	...	1,405
Dirty houses cleansed and limewashed	...	...	...	...	164
Insufficient w.c. accommodation	...	...	...	...	13
Overcrowding of dwelling houses	34
Want of manure pit	1

OFFENSIVE TRADES :—

Visits paid to premises	864
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SHOPS :—

Butchers and provision shops inspected	3,159
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COWSHEDS :—

Number of cowkeepers on register	20
" inspections	273
" cows allowed	187
Cowkeepers registered during year ...	...	...	...	...	1
Notices served ...	...	...	...	...	15
" complied with ...	...	...	...	...	12
Limewashing done ...	...	...	...	...	39
W.C.'s &c., defective ...	...	...	...	...	2
Yards badly paved and accumulations ...	...	...	...	...	23
Dirty cowsheds ...	...	...	...	...	3
Defective mangers and channels ...	...	...	...	...	4
Veterinary inspections ...	...	...	...	...	8
Contamination of milk ...	...	...	...	...	1
Milking cows with dirty hands ...	...	...	...	...	1
Samples of milk taken from cows ...	...	...	...	...	7
Legal proceedings ...	...	...	...	...	2

MILKSHOPS :—

Number of milksellers on register ...	...	...	...	...	416
Number of inspections ...	...	...	...	...	1,435
Notices served ...	...	...	...	...	109
Notices complied with ...	...	...	...	...	108
Milksellers registered during year ...	...	...	...	...	58
Defective ventilation ...	...	...	...	...	15
W.C.'s &c., defective ...	...	...	...	...	39
Yards badly paved and accumulations ...	...	...	...	...	87
Dairies provided ...	...	...	...	...	3
Dirty milkshops ...	...	...	...	...	14
Milkshops renovated ...	...	...	...	...	26
Applications for registration ...	...	...	...	...	72
Applications withdrawn ...	...	...	...	...	14
Infectious disease on premises ...	...	...	...	...	2

MORTUARY :—

Number of bodies removed to mortuary (57 males, 17 females) ...	...	...	...	...	74
" post-mortem examinations ...	...	...	...	...	24

HOUSE INSPECTION DURING THE YEAR 1907.

CENTRAL WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective Water Closets.	Defective Traps.	Sewery Sinks connected direct with drain.	Number of Water Closets.	Inside Water Closets not Ventilated.	Outside Water Closets not Ventilated.	Outside Water Closets not supplied with Water.	Dampness of Premises.	Overcrowding.	Other Nuisances.
David Street ...	25	...	...	...	...	...	25	...	20	15	1	...	1
Eisteddfod Street ...	40	2	1	...	1	...	40	...	35	40	...	...	7
French Cottages ...	4	...	...	...	...	...	3	...	3	...	...	...	...
Gough Street ...	33	...	...	...	...	...	32	...	32	23	3	...	18
Havelock Street ...	45	1	1	1	...	...	45	...	44	44	8	...	18
Love Lane ...	35	...	...	...	...	...	34	...	34	5	12	...	14
Love Lane Court ...	4	...	...	...	...	...	4	...	4	...	...	...	...
Mary Ann Street ...	48	...	1	...	...	...	43	1	37	26	...	...	15
Park Street ...	31	2	1	1	...	...	32	...	20	28	5	...	...
Peters Court ...	2	...	...	...	...	...	2	...	2	...	...	...	...
Raven Street ...	17	2	2	2	...	...	16	...	16	16	2	...	6
Scott Street ...	57	2	2	4	...	...	57	...	55	...	4	...	26
Tredegar Street ...	47	1	1	...	...	...	45	...	42	23	...	...	1

SOUTH WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective Water Closets.	Defective Traps.	Sewery Sinks connected direct with Drain.	Number of Water Closets.	Inside Water Closets not Ventilated.	Outside Water Closets not Ventilated.	Outside Water Closets not supplied with Water.	Dampness of Premises.	Overcrowding.	Other Nuisances.
Francis Street ...	26	1	...	3	...	...	27	...	27	17	5	...	8
Peel Street ...	37	...	...	...	...	...	37	...	37	23	6	...	11
West Church Street ...	15	...	...	2	...	...	12	...	12	8	6	...	6

CATHAYS WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective Water Closets.	Defective Traps.	Sewery Sinks connected direct with Drain.	Number of Water Closets.	Inside Water Closets not Ventilated.	Outside Water Closets not Ventilated.	Outside Water Closets not supplied with Water.	Dampness of Premises.	Overcrowding.	Other Nuisances.
Catherine Street ...	26	1	...	2	...	...	26	...	26	26	10	...	10
Cranbrook Street ...	41	1	...	1	...	...	41	...	36	35	8	...	8
Letty Street ...	51	1	1	3	...	...	51	...	51	50	6	...	7
Llantrisant Street ...	70	3	5	...	...	1	72	...	68	48	8	...	17
Munday Place ...	28	...	...	...	...	1	30	...	27	23	5	...	9
Salisbury Road ...	80	...	1	1	...	1	111	1	56	61	7	...	23
Wyverne Road ...	114	6	1	5	1	9	117	1	100	99	11	...	26

PARK WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective Water Closets.	Defective Traps.	Sewery Sinks connected direct with Drain.	Number of Water Closets.	Inside Water Closets not Ventilated.	Outside Water Closets not Ventilated.	Outside Water Closets not supplied with Water.	Dampness of Premises.	Overcrowding.	Other Nuisances.
Bedford Place ...	11	...	...	...	...	...	10	...	10	9	1	...	1
Bedford Street ...	108	2	...	3	...	...	109	...	108	170	5	...	6
Byron Street ...	49	2	2	5	...	...	49	...	49	49	...	8	11
Clive Place ...	9	...	...	...	...	...	9	...	9	9	...	...	3
Croft Street ...	27	...	...	1	...	...	27	...	27	27	3	...	...
Lily Street ...	30	1	...	1	...	...	30	...	30	29	2	2	...
Milton Street ...	116	6	5	7	...	...	118	...	116	115	11	...	28
Penline Street ...	12	...	...	...	...	...	12	...	12	12	...	...	...
Rose Street ...	47	1	...	1	...	...	47	...	47	46	7	...	7
Russell Street ...	45	1	1	1	...	...	45	...	45	45	8	...	10
Shakespeare Street ...	42	1	...	1	...	...	43	...	41	43	...	...	3
Saint Peter's Street ...	18	...	...	...	...	...	18	...	18	15	2	...	2
Tavistock Street ...	5	...	...	...	...	...	6	...	5	4	...	...	...

ADAMSDOWN WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective Water Closets.	Defective Traps.	Sewery Sinks connected direct with Drain.	Number of Water Closets.	Inside Water Closets not Ventilated.	Outside Water Closets not Ventilated.	Outside Water Closets not supplied with Water.	Dampness of Premises.	Overcrowding.	Other Nuisances.
Adamsdown Square ...	30	1	...	...	...	...	31	...	31	28	1	...	22
Buzzard Street ...	2	...	...	...	...	...	2	...	2	2	...	...	2
Garth Court ...	5	...	...	...	...	...	5	...	...	...	1	...	2
North William Street ...	35	...	1	2	...	...	35	...	32	35	10	...	17
Pendoylan Place ...	2	...	...	...	...	...	2	...	2	2	...	...	...
Pendoylan Street ...	29	1	...	...	...	...	30	...	30	27	1	1	10
Roland Street ...	31	...	1	1	1	...	30	...	30	27	11	...	19
Rosemary Street ...	3	...	...	...	...	...	3	...	3	3	1	...	2
Taff Street ...	10	...	1	1	...	...	9	...	9	9	1	...	7
Thomas Court ...	3	...	...	...	...	...	3	...	3	3	...	...	3
Zinc Street ...	36	...	...	12	...	...	36	...	36	34	...	...	3

CANTON WARD.

NAME OF STREET	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective Water Closets.	Defective Traps.	Scullery Sinks connected direct with Drain.	Number of Water Closets.	Inside Water Closets not Ventilated.	Outside Water Closets not Ventilated.	Outside Water Closets not supplied with Water.	Dampness of Premises.	Overcrowding.	Other Nuisances.
Brecon Street ...	47	...	...	3	...	...	47	...	47	18	...	...	20
Cardigan Street ...	11	...	...	...	...	...	11	...	11	11	...	...	4
Clive Road ...	124	3	3	5	8	...	154	...	110	48	...	...	40
Edwards Cottages ...	3	...	...	...	...	...	2	...	2	...	...	...	...
Egerton Street ...	48	1	...	3	...	...	48	...	48	38	...	...	22
Parry Street ...	11	...	...	1	...	...	11	...	11	11	...	...	3
Pembroke Road ...	110	1	1	6	...	...	111	...	107	99	...	...	28
Penypeel Road ...	67	7	4	2	...	...	67	...	67	63	...	...	25
Radnor Road ...	53	...	...	...	...	...	53	...	53	22	1	...	19
Railway Terrace ...	5	...	1	1	...	...	4	...	2	...	...	...	1
Springfield Place ...	45	3	...	8	1	...	45	...	45	45	...	...	11
Thornhill Street ...	13	...	...	2	...	...	13	1	13	12	...	...	13

ROATH WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective Water Closets.	Defective Traps.	Scullery Sinks connected direct with drain.	Number of Water Closets.	Inside Water Closets not Ventilated.	Outside Water Closets not Ventilated.	Outside Water Closets not supplied with Water.	Dampness of Premises.	Overcrowding.	Other Nuisances.
Agate Street ...	17	...	...	2	...	...	17	...	17	15	...	...	4
Booker Street ...	14	2	...	3	3	...	14	...	14	14	...	...	2
Bradley Street...	40	...	...	2	...	...	40	...	40	40	...	...	2
Fort Street ...	13	...	2	3	2	...	13	...	13	13	...	...	...
Fox Street ...	12	...	...	1	...	...	12	...	12	12	...	...	2
Harold Street ...	50	1	...	4	1	...	50	...	50	46	...	...	11
Pearl Place ...	7	...	...	...	...	...	7	...	7	3	...	...	...
Pearl Street ...	198	2	3	14	...	...	199	...	192	187	...	...	45
Ruby Street ...	57	...	4	1	...	...	57	...	57	57	1	...	21
Sapphire Street ...	53	2	...	6	1	...	53	...	53	40	...	...	6
Shakespeare Street ...	40	...	...	...	...	...	40	...	40	31	1	...	3
Spring Gardens Place ...	52	...	...	...	...	...	52	...	52	50	...	...	...
Theodora Street ...	52	1	1	5	...	...	52	...	52	52	...	...	8
Tyler Street ...	16	...	2	3	2	...	16	...	16	16	...	...	2

RIVERSIDE WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective Water Closets.	Defective Traps.	Sewery Sinks connected direct with drain.	Number of Water Closets.	Inside Water Closets not Ventilated.	Outside Water Closets not Ventilated.	Outside Water Closets not supplied with Water.	Dampness of Premises.	Overcrowding.	Other Nuisances.
Brunel Street ...	6	...	...	...	...	...	6	...	6	6	...	...	...
Coke Street ...	10	...	...	...	...	...	10	...	6	10	...	...	4
Eldon Street ...	183	1	2	10	...	...	243	...	160	147	...	...	72
Gloucester Street	46	...	1	...	...	...	46	...	40	46	...	...	22
Littleton Street	23	...	1	2	...	...	23	...	23	23	...	...	15
Mansfield Street	14	...	...	...	...	...	14	...	14	4	...	...	2
Rennie Street	29	...	...	1	...	...	29	...	29	25	...	...	4
Smeaton Street	16	...	...	2	...	...	16	...	16	16	...	...	8
Stephenson Street	17	...	...	2	...	...	17	...	16	17	...	...	9
Telford Street ...	40	...	1	...	...	...	40	...	33	40	...	...	10

GRANGETOWN WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective Water Closets.	Defective Traps.	Sewery Sinks connected direct with drain.	Number of Water Closets.	Inside Water Closets not Ventilated.	Outside Water Closets not Ventilated.	Outside Water Closets not supplied with water.	Dampness of Premises.	Overcrowding.	Other Nuisances.
Chester Place ...	13	...	...	...	...	...	13	...	13	13	...	...	...
Chester Street ..	36	7	...	5	...	...	36	...	36	36	18	...	18
Court Road ...	107	4	1	...	...	...	109	...	107	92	24	...	31
Dorset Street ...	68	2	...	1	...	...	68	...	68	68	5	10	15
Hereford Street	58	1	1	2	...	...	58	...	58	56	21	...	23
Warwick Place	5	...	...	...	...	...	5	...	5	5	...	...	...
Warwick Street	48	6	...	6	...	...	48	...	48	48	11	...	17

SPLOTT WARD.

NAME OF STREET.	Number of Houses Inspected.	Defective Drains.	Choked Drains.	Defective Water Closets.	Defective Traps.	Sewery Sinks connected direct with drain.	Number of Water Closets.	Inside Water Closets not Ventilated.	Outside Water Closets not Ventilated.	Outside Water Closets not supplied with Water.	Dampness of Premises.	Overcrowding.	Other Nuisances.
Adeline Street	83	3	...	4	2	...	83	...	83	83	8	3	40
Habershon Street	71	2	1	3	1	...	71	...	71	66	15	..	17
Janet Street ...	73	5	3	5	4	...	73	...	73	72	11	...	38
Ordell Street ...	86	4	...	7	1	...	86	...	86	86	7	17	44
Portmanmoor Road	157	3	3	6	3	1	159	...	155	110	23	2	62
Railway Crescent	4	...	...	...	...	...	4	1	4	3	...	...	...
Railway Street	69	6	...	3	...	...	69	...	69	64	19	...	37

MAGISTERIAL PROCEEDINGS.

ACTS, BYE-LAWS, &c.	Number of Prosecutions	Fines.
		£ s. d.
Sale of Food and Drugs Acts... ..	40	106 1 0
Bye-laws as to Seamen's Lodging Houses	7	5 12 6
Towns Police Clauses Act (Section 31)... ..	53	3 17 0
Regulations under Dairies, Cowsheds and Milkshops Order, 1899. Section 16,		
Sub-Section 5 (b) :	1	2 0 0
Regulations under Dairies, Cowsheds, and Milkshops Order, 1899. Section		
16, Sub-Section 2 (a)	1	1 0 0
Dairies, Cowsheds, and Milkshops Order, 1885. Section 6, Sub-Section 1 ...	5	0 7 6
Totals	107	£118 18 0

I have the honour to be, Gentlemen,

Your obedient Servant,

EDWARD WALFORD.

Medical Officer of Health.

APPENDIX.

CITY OF CARDIFF.

LOCAL GOVERNMENT BOARD TABLE. TABLE I.
VITAL STATISTICS OF WHOLE DISTRICT DURING 1907 AND PREVIOUS YEARS.

Year.	Population estimated to Middle of each Year.	Births.		Total Deaths Registered in the District.						Total Deaths in Public Institutions in the District.	Deaths of Non- residents registered in Public Institutions beyond the District.	Deaths of Residents registered in Public Institutions in the District.	Net Deaths at all Ages belonging to the District.				
		Number.	Rate.*	Under 1 Year of Age.			At all Ages.						Rate*				
				Number.	Rate per 1,000 Births registered.	Rate*	Number.	Rate*									
									5					6	7	8	9
1	2	3	4														
1897	150,087	5,279	35.1	796	151	2,568	17.1	303	34	...	2,534	16.8					
1898	153,783	5,520	35.9	870	158	2,684	17.4	312	57	...	2,627	17.0					
1899	157,414	5,309	33.7	976	184	2,951	18.7	321	93	...	2,858	18.1					
1900	161,452	5,198	32.2	730	141	2,745	17.0	314	78	...	2,667	16.5					
1901	165,308	5,206	31.4	775	148	2,671	16.1	352	75	57	2,653	16.0					
1902	168,909	5,278	31.2	769	145	2,909	17.2	486	88	44	2,865	16.9					
1903	172,598	5,250	30.4	64	122	2,503	14.5	487	96	89	2,496	14.4					
1904	176,313	5,208	29.5	751	144	2,704	15.3	458	96	87	2,695	15.2					
1905	180,054	5,140	28.5	607	118	2,485	13.8	442	108	66	2,443	13.5					
1906	183,823	5,001	27.2	675	134	2,689	14.6	531	135	64	2,618	14.2					
Averages for years 1897-1906	166,974	5,238	31.4	759	145	2,690	16.1	400	86	...	2,645	15.8					
1907	187,620	4,865	25.9	639	131	2,923	15.6	614	141	37	2,819	15.0					

* Rates in Columns 4, 8, and 13 are calculated per 1,000 of estimated population.

LOCAL GOVERNMENT BOARD TABLE—TABLE II.

VITAL STATISTICS OF SEPARATE LOCALITIES IN 1907 AND PREVIOUS YEARS.

NAMES OF LOCALITIES.	CITY OF CARDIFF. (Whole District).				EAST CARDIFF. Registration Sub-District.				CENTRAL CARDIFF. Registration Sub-District.				WEST CARDIFF. Registration Sub-District.			
	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under one year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under one year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under one year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under one year.
Year.																
1897	150,087	5,279	2,534	796	45,282	1,736	643	240	54,184	1,528	909	250	50,051	2,015	982	306
1898	153,783	5,520	2,627	870	47,124	1,811	714	288	54,217	1,610	924	279	51,921	2,089	989	303
1899	157,414	5,309	2,858	976	49,040	1,750	753	307	54,300	1,617	1,009	308	53,861	1,942	1,096	361
1900	161,452	5,198	2,667	730	51,035	1,658	755	214	54,358	1,510	907	229	55,874	2,030	1,005	287
1901	165,308	5,206	2,653	775	53,111	1,667	698	226	54,402	1,572	912	255	57,962	1,967	1,073	294
1902	168,909	5,278	2,865	769	56,613	1,694	733	241	54,541	1,624	1,010	230	60,476	1,960	1,122	293
1903	172,598	5,250	2,496	645	57,013	1,643	633	194	54,299	1,561	853	206	61,339	2,046	1,010	245
1904	176,313	5,208	2,695	751	57,930	1,626	719	224	55,219	1,575	884	218	61,421	2,007	1,092	309
1905	180,054	5,140	2,443	607	58,445	1,654	636	175	55,343	1,536	843	187	61,351	1,970	964	245
1906	183,823	5,001	2,618	675	59,009	1,554	680	188	55,424	1,541	920	216	62,419	1,906	1,018	271
Averages of years 1897 to 1906	166,974	5,238	2,645	759	53,460	1,678	693	229	54,628	1,567	917	237	57,667	1,993	1,035	291
1907	187,620	4,805	2,819	639	59,832	1,529	702	179	55,674	1,475	966	207	62,384	1,861	1,151	253

LOCAL GOVERNMENT BOARD TABLE.

TABLE III.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1907.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.				NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.			
	At all Ages.	At Ages—Years.					East Cardiff Regis. Sub-Dist.	Central Cardiff Regis. Sub-Dist.	West Cardiff Regis. Sub-Dist.	Total Cases removed to Hospital.	East Cardiff Regis. Sub-Dist.	Central Cardiff Regis. Sub-Dist.	West Cardiff Regis. Sub-Dist.	Total Cases removed to Hospital.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.								
Small-pox ...	16	...	1	...	3	12	...	1	14	1	...	12	3	15
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Group)...	304	1	83	140	44	36	...	85	73	146	45	52	82	179
Erysipelas ...	147	3	4	13	12	105	10	39	56	52	...	...	...	...
Scarlet Fever ...	950	7	324	541	54	24	...	364	256	330	251	189	243	683
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	62	...	2	13	19	28	...	7	37	18	1	28	6	35
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	16	...	...	...	9	7	...	7	7	2	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals ...	1,495	11	414	707	141	212	10	503	443	549	297	281	334	912

LOCAL GOVERNMENT BOARD TABLE.

TABLE IV.

CAUSES OF, AND AGES AT, DEATH DURING THE YEAR 1907.

CAUSES OF DEATH.	DEATHS IN OR BELONGING TO WHOLE DISTRICT AT SUBJOINED AGES.							Deaths in or belonging to Localities (at all Ages).			Total Deaths in Public Institutions in the District.
	All Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	East Cardiff Reg. Sub.-Dis.	Central Cardiff Reg. Sub.-Dis.	West Cardiff Reg. Sub.-Dis.	
Small-pox	2	...	...	...	...	2	...	...	...	2	2
Measles	176	35	123	11	2	...	...	62	56	58	12.
Scarlet Fever	21	1	16	3	1	...	...	...	3	18	18
Whooping-cough	56	30	24	1	1	...	...	18	19	19	...
Diphtheria and Membranous Croup	23	...	12	7	1	3	...	4	2	17	10
Croup	1	1	...	...	...	...	...	...	...	1	...
Fever { Typhus ... ..	...	...	...	...	...	...	...	...	...	...	...
Enteric	13	...	1	1	7	4	...	3	2	8	10
Other continued ... ..	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza	36	1	2	...	3	23	7	14	15	7	...
Diarrhoea	67	53	8	1	...	1	4	24	20	23	4
Enteritis	50	27	11	...	...	8	4	15	20	15	6
Puerperal Fever	9	...	...	...	4	5	...	6	3	...	1
Erysipelas	18	2	...	...	...	3	3	1	3	4	1
Other Septic Diseases	12	1	4	1	...	5	1	2	7	3	10
Phthisis	220	3	3	10	46	148	10	46	67	107	54
Other Tubercular Diseases	91	19	20	18	15	18	1	25	32	34	19
Cancer, Malignant Disease	134	...	1	...	...	97	36	34	51	49	51
Bronchitis	212	54	21	2	1	51	83	47	63	102	33
Pneumonia	284	83	69	6	10	88	28	86	89	109	31
Pleurisy	11	...	3	...	...	5	3	2	6	3	6
Other Diseases of Respiratory Organs	30	4	9	1	1	10	5	6	16	8	3
Alcoholism	16	...	...	...	...	16	...	2	11	3	4
Cirrhosis of Liver ... ..	...	...	...	...	...	...	...	...	...	...	...
Venereal Diseases	18	11	...	...	...	6	1	2	10	6	6
Premature Birth	95	95	...	...	...	...	...	19	30	46	4
Diseases and Accidents of Parturition	9	...	...	...	2	7	...	3	3	3	2
Heart Diseases	342	6	1	7	16	202	110	81	111	150	77
Accidents	115	8	8	10	9	69	11	7	80	28	62
Suicides	8	...	...	1	...	7	...	2	4	2	...
Homicide	1	...	...	...	...	1	...	...	1	...	...
Executions	2	...	...	...	...	2	...	...	2	...	...
All other causes	757	205	46	18	28	227	233	191	240	326	188
All Causes	2,819	639	387	98	147	1,008	540	702	966	1,151	614

LOCAL GOVERNMENT BOARD TABLE. TABLE V.

INFANTILE MORTALITY DURING THE YEAR 1907.

DEATHS FROM STATED CAUSES IN WEEKS AND MONTHS UNDER ONE YEAR OF AGE.

CAUSE OF DEATH.				Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes.	Certified ... ..	...	...	114	36	22	16	188	66	63	42	28	40	31	42	31	33	27	47	638
	Uncertified ... ..	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
i. Common Infectious Diseases.	Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles ... ..	...	...	...	...	...	...	...	...	...	1	1	1	2	8	2	6	3	11	35
	Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
	Diphtheria, including Membranous Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ii. Diarrhoeal Diseases.	Whooping Cough ...	...	...	...	...	...	...	...	2	3	6	1	2	1	5	3	2	1	4	30
	Diarrhoea, all forms	...	...	...	...	...	...	...	4	9	7	3	6	4	8	3	4	2	3	53
	Enteritis, Muco-enteritis, } Gastro-enteritis	...	...	1	...	1	...	1	4	9	3	...	1	...	2	1	4	2	...	27
	Gastritis, Gastro-intestinal Catarrh }	2	...	1	2	5	2	2	1	2	...	...	...	1	...	...	...	...	...	13
iii. Wasting Diseases.	Premature Birth ...	...	69	10	6	2	87	5	1	...	...	1	...	1	...	...	...	...	...	95
	Congenital Defects ...	...	3	3	2	...	8	1	1	1	...	...	...	...	...	...	...	...	...	11
	Injury at Birth ...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
	Want of Breast-milk, } Starvation	...	...	...	...	...	...	3	1	2	1	...	...	...	...	...	...	...	...	7
iv. Tuberculous Diseases.	Atrophy, Debility, } Marasmus	22	9	2	6	39	16	13	7	2	2	3	...	2	...	2	...	2	...	86
	Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	1	...	2	...	1	...	1	...	...	5
	Tuberculous Peritonitis } Tabes Mesenterica	...	...	...	...	...	...	...	...	2	1	6	...	3	...	...	...	2	...	14
	Other Tuberculous Diseases	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	1	...	3
v. Other Causes.	Erysipelas ... ..	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	2
	Syphilis ... ..	...	...	...	...	1	1	3	3	1	...	...	2	...	...	...	...	1	...	11
	Rickets ... ..	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	1	...	...	4
	Meningitis (not Tuberculous)	...	...	...	...	...	...	1	1	1	...	1	1	1	...	1	...	...	...	7
	Convulsions ... ..	...	8	4	2	3	17	9	3	1	5	4	4	2	...	1	1	...	...	47
	Bronchitis ... ..	...	...	7	3	...	10	10	6	4	1	2	2	2	5	1	3	8	...	54
	Laryngitis ... ..	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	2
	Pneumonia ... ..	...	...	2	...	...	2	3	8	4	5	11	5	9	5	14	5	12	...	83
	Suffocation, overlying	...	1	...	...	...	1	...	1	...	...	...	1	1	...	...	...	1	...	5
	Other causes ... ..	...	8	1	4	2	15	1	2	1	4	2	3	1	5	3	4	2	...	43
Totals				115	36	22	16	189	66	63	42	28	40	31	42	31	33	27	47	639

METEOROLOGICAL OBSERVATIONS TAKEN AT ROATH PARK, CARDIFF, DURING THE YEAR 1907.

MONTH.	Mean Barometric Pressure.	HYGROMETER.			TEMPERATURE.							Bright Sunshine.		RAINFALL.				DEATH RATE per 1,000.	
		Dry Bulb Mean.	Wet Bulb Mean.	Mean Relative Humidity.	Maximum.	Minimum.	Mean of Maximum.	Mean of Minimum.	Mean Temperature.	Minimum (Gross).	Earth (Mean.)		hrs.	Amount.	Greatest Fall in 24 hours.	Date of Greatest Fall.	No. of days with Rain (0.01 in. or more.)	All Causes.	Zymotic Diseases (Seven Chief more.)
	in.	°	°	°	°	°	°	°	°	°	1 foot.	4 feet.			in.				
January ...	30.194	38.0	36.8	89	51.7	18.0	44.0	33.0	38.5	29.6	40.5	45.7	...	2.96	0.97	1st	20	15.5	1-2
February ...	29.906	36.5	35.1	87	53.4	17.5	44.1	29.9	37.0	26.1	38.1	43.0	...	1.75	0.55	19th	12	19.0	0.9
March ...	30.063	43.9	41.3	81	66.3	21.5	53.1	33.6	43.3	26.4	43.1	43.5	...	1.92	0.56	15th	14.	16.4	1.3
April ...	29.659	46.9	44.2	80	65.0	29.0	53.7	38.5	46.1	30.2	48.6	46.7	...	3.95	0.74	12th	22	14.3	0.3
May ...	29.736	52.5	48.5	74	71.3	31.0	58.9	43.7	51.3	37.6	54.4	50.2	...	3.07	0.40	1st & 30th	19	13.7	0.7
June ...	29.750	56.0	52.0	75	72.1	39.0	60.9	48.0	54.4	43.2	58.3	54.0	...	4.53	0.88	29th	26	10.2	0.6
July ...	30.062	60.4	55.8	73	80.4	39.6	66.8	50.1	58.4	45.2	61.5	56.3	...	2.91	0.97	4th	17	13.1	2.9
August ...	30.037	60.3	56.6	78	71.3	40.0	65.6	51.0	58.3	46.1	61.8	58.6	167.7	3.40	0.92	2nd	23	13.4	4.9
September ...	30.166	57.7	54.9	83	73.9	37.0	66.6	48.2	57.4	41.5	60.3	58.7	174.3	0.99	0.30	3rd	7	13.9	3.2
October ...	29.630	51.0	48.9	85	64.1	31.1	57.2	43.5	50.3	36.4	54.2	56.4	100.2	6.93	0.70	8th	29	17.0	3.7
November ...	29.983	44.7	43.3	88	57.4	27.8	50.7	38.1	44.4	29.1	48.5	52.5	74.4	3.36	0.66	25th	19	16.0	1.2
December ...	29.774	40.6	39.2	88	55.2	26.5	45.7	35.9	40.4	32.9	42.9	44.3	43.1	7.33	1.48	4th	24	15.6	0.8

588.5
 49.0
 * Sunshine Record commenced on 1st August, 609.9
 657.3 m.p.s. 599.8
 55.6
 48.3
 51.0 50.8

MEAN TEMPERATURE OF EACH MONTH DURING THE
TEN YEARS, 1898-1907.

MONTH.	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907
January	44.0	42.2	36.5	37.9	36.5	40.5	38.5	38.3	41.6	38.5
February	41.3	41.3	39.8	37.8	36.1	45.1	39.0	42.4	38.6	37.0
March	41.1	42.1	38.3	40.6	43.8	45.9	40.3	44.6	41.9	43.3
April	46.6	47.2	46.6	46.9	42.7	44.5	47.8	46.3	45.5	46.1
May	49.9	52.0	50.4	53.5	48.8	58.0	51.4	50.8	51.2	51.3
June	55.9	59.8	55.3	57.3	56.8	54.9	57.2	58.6	57.3	54.4
July	60.6	63.8	63.9	64.2	58.8	56.9	63.0	62.7	59.1	58.4
August	61.9	68.3	59.8	60.0	58.7	58.1	60.1	58.6	62.4	58.3
September	58.8	57.8	55.5	57.7	55.2	55.8	55.0	54.3	57.0	57.4
October	52.7	48.9	49.1	49.7	50.1	52.1	50.7	45.4	57.8	50.3
November	45.7	47.0	44.5	41.5	43.3	50.4	42.0	40.6	45.2	44.4
December	46.7	37.3	43.5	40.9	40.2	39.0	40.8	40.3	39.1	40.4

DIRECTION OF THE WIND DURING 1907.

MONTH.	DIRECTION OF WIND.							
	N.	N.E.	N.W.	S.	S.E.	S.W.	E.	W.
	DAYS.	DAYS.	DAYS.	DAYS.	DAYS.	DAYS.	DAYS.	DAYS.
January	1	5	10	...	2	5	3	5
February ... ..	...	8	12	...	2	4	...	2
March ... ..	...	2	9	...	5	5	4	6
April ... ..	...	10	7	...	2	5	4	2
May ... ..	...	7	2	...	3	5	10	4
June ... ..	...	1	7	2	...	9	1	10
July ... ..	...	4	7	...	5	5	5	5
August ... ..	...	3	11	...	...	9	...	8
September ... ..	...	13	2	1	...	3	7	4
October ... ..	...	6	7	...	4	9	1	4
November ... ..	...	13	6	...	2	5	2	2
December	1	8	4	...	5	8	...	5
Totals	2	80	84	3	30	72	37	57

TABLE SHOWING RAINFALL AT CARDIFF IN EACH MONTH DURING THE THIRTY-TWO YEARS, 1876-1907.

YEAR	JANUARY.					FEBRUARY.					MARCH.				
	Rainfall in Month, Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours, Inches.	Date of greatest fall.	Rainfall in Month, Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours, Inches.	Date of greatest fall.	Rainfall in Month, Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours, Inches.	Date of greatest fall.	Rainfall in Month, Inches.	Days on which 0.01 or more rain fell.	Date of greatest fall.
1876	1.91	12	0.68	2nd	5.23	22	0.90	14th	3.92	22	0.54	9th	3.92	22	0.54
1877	5.77	27	0.72	3rd	2.79	20	0.42	11th	2.66	21	0.55	23rd	2.66	21	0.55
1878	1.73	17	0.36	27th	3.07	16	0.87	27th	1.25	8	0.40	28th	1.25	8	0.40
1879	5.95	10	1.30	1st	5.95	23	0.86	20th	1.14	14	0.32	23rd	1.14	14	0.32
1880	0.87	11	0.42	13th	3.88	22	1.06	18th	1.90	12	0.75	2nd	1.90	12	0.75
1881	0.92	12	0.23	26th	4.81	15	1.12	9th	3.88	16	0.68	3rd	3.88	16	0.68
1882	3.19	13	0.82	2nd	2.56	15	0.60	28th	2.26	19	0.32	1st	2.26	19	0.32
1883	5.75	25	1.11	24th	3.73	20	0.65	10th	0.60	10	0.12	19th	0.60	10	0.12
1884	6.03	21	0.99	31st	4.40	22	1.35	17th	3.39	16	1.27	3rd	3.39	16	1.27
1885	3.71	20	0.58	9th	3.65	22	0.67	26th	1.87	16	0.53	29th	1.87	16	0.53
1886	5.03	23	0.91	30th	1.32	11	0.62	28th	3.97	13	0.68	20th	3.97	13	0.68
1887	2.76	15	0.73	7th	1.45	6	0.73	3rd	3.21	10	1.16	15th	3.21	10	1.16
1888	1.70	12	0.49	1st	1.07	9	1.09	2nd	4.62	15	0.76	24th	4.62	15	0.76
1889	1.58	10	0.58	9th	2.00	16	0.64	10th	3.89	16	1.17	8th	3.89	16	1.17
1890	5.21	24	0.61	26th	0.55	7	0.22	19th	1.52	14	0.28	24th	1.52	14	0.28
1891	3.58	13	1.26	23rd	0.05	2	0.03	2nd	1.76	16	0.31	15th	1.76	16	0.31
1892	2.10	15	0.70	16th	2.38	19	0.58	20th	1.18	6	0.48	15th	1.18	6	0.48
1893	2.38	19	0.94	12th	6.04	22	0.95	25th	0.31	6	0.14	2nd	0.31	6	0.14
1894	3.20	23	0.44	19th	3.68	20	0.78	17th	3.37	13	0.82	1st	3.37	13	0.82
1895	3.88	20	0.71	19th	0.17	4	0.08	24th	3.92	21	0.85	27th	3.92	21	0.85
1896	0.64	6	0.40	24th	1.39	9	0.80	13th	4.47	24	0.54	7th	4.47	24	0.54
1897	3.78	17	0.50	31st	5.73	21	0.70	4th	6.29	19	0.90	31st	6.29	19	0.90
1898	1.96	10	0.48	10th	1.71	17	0.22	18th	1.12	9	0.53	6th	1.12	9	0.53
1899	5.50	20	1.03	20th	3.89	13	0.79	4th	1.39	6	0.88	25th	1.39	6	0.88
1900	5.81	23	1.26	6th	6.40	20	0.99	18th	1.06	6	0.33	21st	1.06	6	0.33
1901	2.48	17	0.59	26th	1.01	10	0.25	26th	2.10	12	0.31	6th	2.10	12	0.31
1902	2.60	18	0.72	3rd	1.35	9	0.40	22nd	2.58	13	0.54	14th	2.58	13	0.54
1903	5.81	24	1.69	4th	2.19	20	0.48	24th	5.80	26	0.65	1st	5.80	26	0.65
1904	5.60	26	0.89	11th	5.81	24	0.78	10th	2.97	19	0.65	7th	2.97	19	0.65
1905	1.34	17	0.37	16th	1.05	13	0.33	26th	5.76	22	1.26	10th	5.76	22	1.26
1906	7.42	24	0.89	5th	3.71	22	0.60	16th	2.92	15	0.95	10th	2.92	15	0.95
1907	2.96	20	0.97	1st	1.75	12	0.55	19th	1.92	14	0.56	15th	1.92	14	0.56

TABLE SHOWING RAINFALL AT CARDIFF IN EACH MONTH DURING THE THIRTY-TWO YEARS, 1876-1907

YEAR	APRIL.				MAY.				JUNE.			
	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours. Inches.	Date of greatest fall.	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours. Inches.	Date of greatest fall.	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours. Inches.	Date of greatest fall.
1876	1.91	17	0.38	28th	0.23	4	0.12	24th	1.91	9	0.52	15th
1877	2.90	20	0.52	20th	2.47	14	0.99	16th	1.48	12	0.41	1st
1878	4.10	21	0.75	9th	4.32	24	0.71	16th	3.68	15	1.05	16th
1879	2.64	17	0.73	19th	2.85	15	0.88	29th	6.48	23	1.64	30th
1880	1.98	13	0.40	5th	1.45	11	0.46	26th	2.38	19	0.53	17th
1881	1.44	7	0.60	13th	2.62	10	1.73	17th	3.59	18	0.63	16th
1882	5.68	20	0.60	12th	2.72	13	0.59	22nd	4.28	20	0.82	5th
1883	0.67	7	0.28	26th	1.90	12	0.70	11th	1.81	17	1.16	27th
1884	1.56	11	0.43	3rd	2.37	14	0.50	2nd	1.92	9	1.11	28th
1885	2.52	16	0.67	1st	3.86	27	0.71	19th	2.61	13	1.04	23rd
1886	2.98	15	0.73	7th	6.38	19	1.52	31st	0.70	7	0.28	1st
1887	1.63	10	0.45	26th	1.94	14	0.63	19th	0.60	4	0.51	2nd
1888	1.48	13	0.30	17th	1.69	8	0.40	17th	3.69	17	0.74	17th
1889	3.54	18	0.71	30th	2.51	16	0.38	31st	0.58	6	0.41	1st
1890	1.80	14	0.34	6th	1.99	13	0.65	9th	2.46	17	0.40	10th
1891	2.02	11	0.40	2nd	3.41	17	0.75	21st	2.47	12	1.30	24th
1892	1.27	9	0.43	20th	1.35	11	0.66	27th	1.93	10	0.61	28th
1893	0.29	5	0.16	1st	2.80	12	0.72	19th	0.67	9	0.23	22nd
1894	2.05	15	0.41	23rd	2.18	15	0.50	15th	2.43	16	0.64	3rd
1895	2.08	12	0.55	24th	0.50	3	0.41	31st	1.15	9	1.32	30th
1896	2.83	14	0.80	15th	9.22	3	0.14	13th	2.48	11	1.00	7th
1897	8.18	20	0.90	13th	2.29	8	0.50	29th	5.02	11	0.90	8th
1898	1.40	10	0.28	11th	4.80	20	0.80	11th	5.06	14	0.90	4th
1899	4.34	18	0.92	20th	2.49	12	0.78	19th	1.17	5	0.45	30th
1900	1.62	12	0.42	3rd	1.89	13	0.37	21st	1.73	14	0.27	14th
1901	4.54	14	0.91	3rd	0.91	5	0.42	30th	3.00	9	1.22	20th
1902	2.36	9	0.54	4th & 14th	2.43	21	0.55	16th	2.86	20	0.45	12th
1903	2.48	16	0.75	25th	4.48	21	1.39	8th	3.11	15	0.90	9th
1904	2.44	21	0.35	29th	3.05	23	0.53	24th	1.29	9	0.58	14th
1905	2.81	20	0.46	10th	0.15	4	0.06	1st	3.75	18	0.80	30th
1906	1.53	13	0.53	24th	4.32	20	0.97	26th	2.73	11	0.87	28th
1907	3.95	22	0.74	12th	3.07	19	0.40	1st & 30th	4.53	26	0.88	29th

TABLE SHOWING RAINFALL AT CARDIFF IN EACH MONTH DURING THE THIRTY-TWO YEARS, 1876-1907.

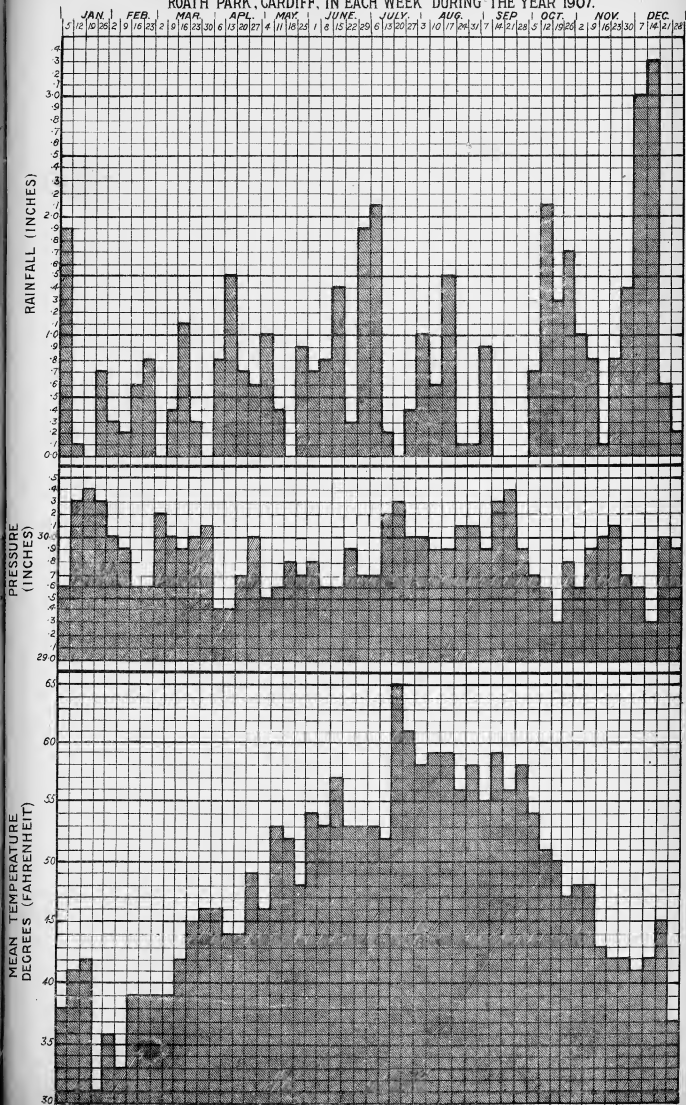
YEAR	JULY.				AUGUST.				SEPTEMBER.			
	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours. Inches.	Date of greatest fall.	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours. Inches.	Date of greatest fall.	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours. Inches.	Date of greatest fall.
1876	1.91	10	0.41	6th	6.06	27	2.72	19th	7.08	19	1.28	30th
1877	4.94	18	1.27	14th	5.70	21	1.42	27th	3.25	8	1.39	27th
1878	2.01	9	0.78	23rd	10.82	24	3.64	15th	3.21	9	1.28	22nd
1879	4.00	21	0.81	19th	8.12	22	1.34	25th	4.85	17	0.69	7th
1880	6.64	23	0.95	17th	0.77	7	0.27	2nd	3.67	15	0.77	17th
1881	2.62	15	0.77	30th	6.94	20	1.45	22nd	2.09	13	0.48	22nd
1882	5.77	24	0.84	6th	6.75	16	1.14	22nd	3.94	17	0.79	28th
1883	3.56	21	0.82	20th	2.09	16	0.73	8th	1.53	19	1.53	23rd
1884	4.05	20	0.94	23rd	2.21	9	0.84	31st	1.96	15	0.64	21st
1885	0.72	6	0.31	18th	2.74	12	1.07	6th	6.51	23	1.76	10th
1886	4.85	17	0.71	29th	1.68	9	0.44	9th	4.08	14	0.75	4th
1887	1.51	13	0.85	26th	2.88	11	1.02	16th	4.07	17	1.24	1st
1888	6.83	25	1.16	7th	3.50	17	0.74	29th	1.21	8	0.52	27th
1889	3.85	12	1.16	9th	3.90	15	0.65	2nd	2.09	9	1.53	23rd
1890	3.57	19	0.73	17th	3.95	20	0.95	9th	1.57	11	0.50	17th
1891	2.21	17	0.36	2nd	7.19	22	1.10	26th	2.43	19	0.51	3rd
1892	3.83	9	1.50	12th	4.64	16	1.62	27th	3.95	14	1.38	29th
1893	3.88	17	0.80	10th	3.05	14	0.52	20th	2.03	15	0.89	28th
1894	4.22	20	0.97	24th	4.55	18	1.55	25th	2.22	10	0.80	22nd
1895	4.71	15	0.94	23rd	4.08	17	1.19	12th	1.17	10	0.40	6th
1896	1.14	8	0.35	24th	2.89	15	0.84	19th	7.34	23	1.10	17th
1897	2.51	8	0.80	6th	5.42	16	1.30	30th	6.37	13	1.38	29th
1898	0.40	2	0.20	1st	3.48	10	0.67	6th	1.94	4	1.38	29th
1899	0.32	6	0.09	1st	1.74	7	0.56	29th	2.57	13	0.74	26th
1900	0.65	8	0.27	27th	4.06	14	0.88	9th	1.32	10	0.50	26th
1901	2.58	8	1.00	23rd	4.00	14	1.30	13th	4.36	17	1.52	13th
1902	2.19	15	0.77	19th	4.21	23	0.68	14th	3.13	15	0.86	10th
1903	3.53	16	1.06	17th	5.84	26	0.72	23rd	3.73	21	0.92	28th
1904	4.13	19	1.69	25th	3.56	17	0.69	22nd	3.49	13	0.70	14th
1905	0.88	11	0.37	1st	4.26	22	0.67	2nd	1.57	11	0.52	9th
1906	0.68	14	0.27	13th	2.88	20	0.59	24th	1.00	8	0.48	14th
1907	2.91	17	0.97	4th	3.40	23	0.92	2nd	0.99	7	0.30	3rd

TABLE SHOWING RAINFALL AT CARDIFF IN EACH MONTH DURING THE THIRTY-TWO YEARS, 1876-1907.

YEAR	OCTOBER.				NOVEMBER.				DECEMBER.				YEAR.
	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours. Inches.	Date of greatest fall.	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours. Inches.	Date of greatest fall.	Rainfall in Month. Inches.	Days on which 0.01 or more rain fell.	Greatest fall in 24 hours. Inches.	Date of greatest fall.	
1876	3.84	17	0.62	16th	5.27	18	0.75	12th	7.13	23	0.80	17th	46.62
1877	4.89	16	1.15	15th	6.54	25	1.06	24th	3.40	25	0.88	28th	46.79
1878	5.76	18	1.09	23rd	5.76	13	0.84	9th	2.70	10	0.75	28th	45.71
1879	1.51	12	0.35	19th	0.43	8	0.18	20th	2.11	9	0.79	31st	44.79
1880	4.94	15	1.45	25th	3.67	15	0.90	15th	6.70	20	1.09	14th	38.85
1881	3.23	13	0.72	22nd	4.98	23	0.65	26th	4.50	25	1.77	7th	41.62
1882	8.33	23	1.64	23rd	6.26	21	0.90	7th	4.86	25	0.73	31st	56.60
1883	4.23	17	0.61	15th	6.38	24	0.80	21st	1.92	17	0.57	10th	38.78
1884	1.01	17	0.35	8th	2.12	16	0.47	30th	5.87	20	0.68	5th	36.89
1885	5.59	22	1.60	22nd	5.47	16	1.11	27th	1.74	17	0.05	5th	40.99
1886	5.09	21	0.87	15th	3.39	21	1.03	5th	6.64	21	1.33	26th	48.11
1887	2.80	13	1.14	29th	3.48	21	0.69	3rd	3.46	20	0.75	12th	29.79
1888	1.74	11	0.52	28th	7.04	26	1.13	12th	3.61	16	0.88	27th	38.18
1889	3.77	25	0.48	8th	1.87	12	0.75	24th	2.40	14	0.80	21st	31.38
1890	1.92	16	0.41	7th	3.89	20	0.67	6th	0.80	4	0.33	18th	29.23
1891	7.12	22	1.32	18th	3.91	15	0.74	28th	6.19	19	0.78	30th	42.34
1892	2.64	15	0.51	27th	3.25	18	0.66	4th	2.23	12	0.62	1st	22.63
1893	5.98	21	1.29	4th	2.30	13	0.58	1st	4.18	19	0.94	12th	33.91
1894	4.91	14	1.05	24th	4.72	20	0.83	13th	3.66	20	0.51	17th	41.19
1895	3.67	15	0.94	3rd	4.21	23	0.60	5th	3.45	31	0.48	17th	32.64
1896	4.65	19	0.74	5th	0.96	5	0.60	15th	6.41	22	0.72	4th	35.42
1897	3.22	7	0.90	2nd	1.82	7	0.63	27th	6.06	18	1.19	7th	56.80
1898	7.30	18	1.13	17th	7.46	16	1.39	23rd	5.44	17	1.03	6th	42.07
1899	2.34	12	0.60	27th	3.29	11	0.95	9th	3.69	19	0.86	28th	32.75
1900	5.79	21	1.06	29th	4.99	22	0.71	24th	6.55	26	1.06	30th	41.90
1901	2.64	21	0.37	1st	1.50	8	0.51	11th	7.15	21	0.99	7th & 28th	36.27
1902	3.88	21	0.96	21st	4.97	20	1.30	8th	3.95	18	0.83	28th	36.41
1903	11.06	31	2.16	14th	2.40	19	0.53	27th	4.24	21	0.69	8th	54.97
1904	2.48	18	0.85	16th	3.50	15	0.80	6th	3.40	25	0.67	5th	41.72
1905	2.23	9	0.52	31st	3.68	18	0.75	10th	1.87	14	0.55	7th	29.35
1906	7.62	28	1.59	1st	3.42	20	0.76	20th	2.50	19	0.34	25th	40.73
1907	6.93	29	0.70	8th	3.36	19	0.66	25th	7.33	24	1.48	4th	43.10

Chart

SHOWING RAINFALL, MEAN BAROMETRIC PRESSURE, AND MEAN TEMPERATURE, RECORDED AT
ROATH PARK, CARDIFF, IN EACH WEEK DURING THE YEAR 1907.



DEATHS FROM SPECIFIED CAUSES AT ALL AGES, AND AT SIX GROUPS OF AGES, IN CARDIFF

DURING THE YEAR, 1907.

CAUSE OF DEATH.	0 to 1		1 to 5		5 to 15		15 to 25		25 to 65		65 and upwards.		ALL AGES.			Rate per 1,000 persons living.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.			
Small-Pox, Vaccinated ...	...	...	...	...	...	...	...	...	2	...	...	...	2	...	2	0-01
Measles ...	18	17	63	65	3	8	...	1	...	...	...	...	85	91	176	0-34
Scarlet Fever ...	...	...	1	8	2	1	1	...	...	...	...	...	11	10	21	0-11
Epidemic Influenza ...	...	...	1	1	...	...	1	2	10	13	4	3	16	20	35	0-19
Whooping Cough ...	11	19	10	14	...	1	...	1	...	...	...	...	21	35	56	0-29
Diphtheria, Membranous Croup ...	...	...	6	1	6	1	...	1	2	1	...	...	14	9	23	0-12
Enteric Fever ...	...	...	...	...	1	...	1	2	5	2	...	...	6	7	13	0-07
Diarrhoea, Dysentery ...	26	13	4	3	...	...	...	...	1	2	...	...	32	19	51	0-27
Epidemic or Zymotic Enteritis ...	7	7	...	1	...	...	...	...	...	...	...	...	7	8	15	0-08
Tetanus ...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	0-00
Syphilis ...	7	4	...	...	...	...	...	...	1	1	...	...	8	5	13	0-07
Gonorrhoea ...	...	...	...	...	...	...	...	...	3	...	...	...	4	...	4	0-02
Erysipelas ...	2	...	...	...	...	...	...	...	3	2	1	4	4	8	0-04	
Puerperal Fever ...	...	...	...	...	...	...	4	...	5	...	...	...	9	9	0-05	
Pneumia, Septicæmia ...	1	...	1	...	...	...	...	...	...	1	...	...	2	1	3	0-02
Septic, Ulcerative or Infective Endocarditis ...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	0-00
Other Allied Diseases ...	...	...	1	2	1	...	...	...	1	1	1	...	5	3	8	0-04
Rheumatic Fever ...	...	...	...	...	...	...	...	...	2	1	...	...	4	8	12	0-06
Rheumatism of the Heart ...	...	...	1	...	...	...	...	...	1	...	...	...	2	...	2	0-01
Tuberculosis of Brain or Meninges, Acute Hydrocephalus ...	2	2	7	6	9	5	4	3	2	...	...	...	24	16	40	0-21
Tuberculosis of Larynx ...	...	...	...	...	...	...	...	...	2	...	...	...	2	...	2	0-01
Tuberculosis of Lungs, Phthisis, Phthisis Pulmonalis ...	3	...	3	...	1	9	22	23	80	64	4	6	113	102	215	1-15
Tuberculosis of Intestines, Tuberculosis Mesenterica ...	5	5	1	3	1	1	...	...	2	1	...	...	9	10	19	0-10
General Tuberculosis, Tubercular Disease of undefined position ...	1	1	1	...	...	1	2	5	2	1	...	...	10	9	19	0-10
Other forms of Tuberculosis, Scrofula ...	1	2	2	...	...	...	1	3	1	...	...	...	6	5	11	0-06
Acute Alcoholism, Delirium Tremens ...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	2	0-00
Chronic Alcoholism ...	...	...	...	...	...	...	...	...	1	1	...	...	1	1	2	0-01
Osteo-arthritis, Rheumatoid Arthritis ...	...	...	...	...	...	1	...	...	3	3	1	3	4	7	11	0-06
Gout ...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	2	0-01
Cancer ...	...	...	1	...	...	...	...	45	51	9	27	55	78	133	0-71	
Diabetes Mellitus ...	...	...	...	...	...	1	...	4	5	...	2	5	7	12	0-06	
Hæmophilia ...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	0-00
Anæmia, Leucocythæmia ...	...	...	1	...	...	...	...	3	2	2	...	...	2	6	8	0-04
Lymphadenoma, Hodgkin's Disease ...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	0-00
Premature Birth ...	47	48	...	...	...	...	...	...	...	...	...	...	47	48	95	0-51
L Injury at Birth ...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	0-00
Debility at Birth ...	25	29	...	...	...	...	...	...	...	...	...	...	25	29	54	0-28
Atelectasis ...	...	4	...	...	...	...	...	...	...	...	...	...	...	4	4	0-02
Congenital Defects ...	8	4	1	...	1	...	...	...	4	6	...	...	9	5	14	0-07
Want of Breast Milk ...	6	2	1	...	...	...	...	...	...	...	...	...	7	3	10	0-05
Atrophy, Debility, Marasmus ...	15	16	1	...	...	...	...	...	2	...	...	...	16	18	34	0-18
Deformation ...	1	2	1	2	...	...	...	...	...	...	...	...	2	4	6	0-03
Rickets ...	4	...	3	2	...	...	...	...	...	...	...	...	7	2	9	0-05
Old Age, Senile Decay ...	...	...	...	...	...	...	...	...	2	66	66	68	66	134	0-71	
Convulsions ...	30	18	5	5	1	...	1	...	1	...	...	...	36	25	61	0-32
Meningitis ...	2	4	5	3	2	3	2	...	1	...	...	...	9	13	22	0-11
Encephalitis ...	1	...	...	...	...	...	...	...	1	1	...	...	1	2	3	0-01
Apoplexy ...	...	...	...	...	...	...	...	...	5	8	9	4	14	12	26	0-13
Softening of Brain ...	...	...	...	...	...	...	...	...	1	...	1	2	2	1	3	0-02
Hemiplegia, Brain Paralysis ...	...	...	1	...	...	...	...	...	9	6	4	14	10	24	0-12	
General Paralysis of Insane ...	...	...	...	...	...	...	...	...	1	...	1	2	1	3	0-02	
Other forms of Insanity ...	...	...	...	...	...	...	...	...	1	...	5	...	6	6	0-03	
Chorea ...	...	...	...	...	...	...	1	1	...	...	...	...	1	1	2	0-01
Cerebral Tumour ...	...	...	1	...	1	...	...	...	3	2	1	1	6	3	9	0-05
Epilepsy ...	...	...	...	...	...	...	1	2	1	...	...	...	2	2	4	0-02
Laryngismus Stridulus ...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	0-00
Locomotor Ataxy ...	...	...	...	...	...	...	...	...	2	...	...	...	2	...	2	0-01
Paraplegia, Diseases of Spinal Cord ...	...	...	...	...	1	1	3	4	4	2	3	7	11	18	0-09	
Other and ill-defined Diseases of Brain or Nervous System ...	1	...	1	...	...	...	...	...	6	2	2	1	10	3	13	0-07
Otitis, Otorrhoea ...	1	1	...	...	...	...	1	1	2	...	...	...	4	2	6	0-03
Diseases of Nose, Epistaxis ...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1	0-00
Pericarditis ...	...	...	...	...	...	...	1	2	1	...	...	...	2	...	2	0-01
Endocarditis, Valvular Disease of the Heart ...	...	...	...	...	...	...	...	20	16	5	7	27	25	52	0-27	
Aneurism ...	...	...	...	...	...	...	1	4	3	1	...	...	5	4	9	0-05
Senile Gangrene ...	...	...	...	...	...	...	...	...	1	1	4	1	5	6	0-03	
Embolism, Thrombosis ...	...	...	...	...	...	...	1	4	4	...	2	4	7	11	0-06	
Phlebitis ...	...	...	...	...	...	...	...	...	1	2	...	...	1	1	2	0-00
Varicose Veins ...	...	...	...	...	...	...	...	...	1	2	...	...	1	2	3	0-02
Other and ill-defined Diseases of Heart and Circulatory System ...	5	1	...	...	2	2	4	8	76	66	42	48	130	125	255	1-36
Laryngitis ...	2	...	4	4	1	...	...	...	1	...	...	...	8	4	12	0-06
Croup ...	2	...	...	...	...	...	...	...	...	...	...	...	2	...	2	0-01
Other Diseases of Larynx and Trachea ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0-01
Acute Bronchitis ...	25	29	10	11	...	2	1	...	2	8	2	8	40	58	98	0-52
Chronic Bronchitis ...	...	...	...	...	...	...	...	...	20	20	37	36	57	56	113	0-60
Lober, Croupous, Acute Pleuro-Pneumonia ...	2	1	2	1	...	1	3	1	12	6	6	3	25	13	38	0-20
Lobular, Catarrhal, Broncho-Pneumonia ...	30	20	16	20	1	2	...	...	4	9	2	3	53	54	107	0-57
Pneumonia, form not stated ...	13	17	15	15	2	...	3	3	36	21	3	11	72	67	139	0-74
Emphysema, Asthma ...	...	...	...	...	...	...	...	...	7	...	3	1	10	1	11	0-06
Pleurisy ...	...	...	2	1	...	...	...	...	3	2	1	7	4	11	0-06	
Other and ill-defined Diseases of Respiratory System ...	1	...	...	...	...	...	...	...	1	1	1	...	3	1	4	0-02
Diseases of Mouth and Annæxa... ..	...	...	1	...	1	1	1	...	...	...	...	...	3	1	4	0-02
Diseases of Oesophagus ...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	2	0-01
Ulcer of Stomach and Duodenum ...	...	...	...	...	...	...	...	...	1	5	4	2	22	10	32	0-17
Other Diseases of Stomach ...	...	...	11	4	...	...	...	...	4	4	2	2	28	22	50	0-26
Enteritis ...	16	11	6	5	...	...	...	...	4	4	2	2	28	22	50	0-26
Appendicitis ...	...	...	...	...	...	...	1	1	...	...	...	1	2	1	3	0-02
Obstruction of Intestine ...	2	...	2	...	...	1	...	...	8	5	4	4	16	10	26	0-13
Other Diseases of Intestine ...	1	...	...	...	...	...	...	...	2	...	...	...	4	1	4	0-02
Cirrhosis of Liver ...	...	...	...	...	...	...	...	...	5	8	...	...	5	8	13	0-07
Other Diseases of Liver ...	1	...	...	...	1	...	...	...	4	3	1	3	7	6	13	0-07
Peritonitis ...	...	...	...	...	...	...	1	...	...	5	...	...	1	5	6	0-03
Other and ill-defined Diseases of Digestive System ...	3	1	...	...	...	...	...	...	5	...	...	...	8	1	9	0-05
Diseases of Lymphatic System and Ductless Glands ...	...	...	...	...	...	...	...	1	1	3	...	...	1	1	2	0-01
Acute Nephritis ...	...	...	1	...	...	...	1	2	6	10	3	...	10	13	23	0-12
Bright's Disease ...	...	...	1	1	...	...	...	8	14	2	6	11	20	31	0-17	
Calculus ...	...	...	...	...	...	...	1	...	...	...	...	1	1	1	2	0-01
Diseases of Bladder and Prostate ...	...	...	...	...	...	...	...	3	1	9	...	...	12	1	13	0-07
Other and ill-defined Diseases of Urinary System ...	...	...	...	...	...	...	...	1	1	1	...</					